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RESEARCH REPORT

SURVEY & ANALYSIS OF SALARY TRENDS 1992

PRODUCED BY
THE RESEARCH DEPARTMENT OF
THE AMERICAN FEDERATION OF TEACHERS

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SURVEY & ANALYSIS OF SALARY TRENDS 1992

F. HOWARD NELSON

AMERICAN FEDERATION OF TEACHERS, AFL-CIO
555 NEW JERSEY AVE.
WASHINGTON, DC 20001

ALBERT SHANKER, President

This survey has been prepared by
the Research Department of the
American Federation of Teachers, AFL-CIO

Jewell C. Gould, Director
F. Howard Nelson, Associate Director
John Abraham, Assistant Director
Yvonne Bristol, Research Staff
Helen Nemorin, Research Staff

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Survey and Analysis of Salary Trends, 1992

Foreword

This reference document supports state federations and locals in developing salary comparisons and formulating policy. While serving as the primary vehicle for reporting the results of the American Federation of Teachers annual survey of state departments of education, several other data sources are utilized, as noted in Appendix B. Data from the AFT's annual survey of local unions is available in a separate publication titled, AFT Local Union Teacher Salary Survey 1992. The annually revised AFT Cost-of-Living Index now incorporates data from the 1990 Census of Housing, which became available in June, 1992.

Data include national average salaries or earnings for teachers, other school employees, government workers and professional employees over the past 30 years. In many instances, these data are available by state for recent years. This survey contains beginning salaries for teachers and other college graduates over the past 20 years. For the most part, data from the survey of state departments of education are reported as received from the states, but all data are verified against past trends. In some instances, data were confirmed by telephone. Qualifications to the data, if any, are in the notes to some tables. Many states continuously refine data, and any changes reported to the AFT Research Department are incorporated into next year's report. Updated data relating to last year's report has been incorporated into this document.

Comparisons with the various tables can be developed to suit the purposes of a particular local or state federation, whether it is to consider trends, establish the position of members relative to other professionals, or make meaningful and valid comparisons among states. The first section of this report focuses on state comparisons. The second section highlights trends in national averages. The third section focuses on beginning teachers, with supplemental information on experienced teachers reentering the profession and teacher retirement. The fourth section presents an international comparison of public spending on education and preliminary results of an international teacher salary study.

The Department of Research staff is grateful to the various locals, state agencies and state agency employees who provided the information and suggestions for this report. Yvonne Bristol of the Research Department staff helped prepare the manuscript and assisted in other aspects of this report. Helen Nemorin helped to collect data and edit the report. Lisa Warner entered data and helped with other aspects of the report. The international salary comparison section benefitted from the help of Glynn Bates and Tim O'Brien.

Highlights

State Comparisons

- The average teacher salary for 1991-92 of approximately $34,213 represents a 3.6 percent increase over the previous year's average salary of $33,033.

- The 3.6% average teacher salary increase is the smallest increase in 27 years.

- Replicating the experience of ten of the past eleven years, teachers experienced an increase in earnings exceeding inflation during the 1991-92 school year.

- Connecticut had the highest average salary at $47,510, or 138 percent of the national average. South Dakota had the lowest average salary at $23,291, or just 68 percent of the national average.

- Arkansas reported the highest average salary increase--13.7 percent--for 1991-92. Pennsylvania posted a 7.4 percent gain--the second largest gain among all the states.

- Delaware and South Carolina reported an average salary decline.

- Arkansas and West Virginia reported average teacher salary increases exceeding 18 percent over the past two years.

- Since the 1980-81 school year, the average teacher salary in Connecticut has improved by nearly 75 percent, and in Vermont and New Hampshire, average salaries improved by about 150 percent. Thirteen states, including Arkansas, had more than a 100 percent increase. The U.S. average increased only 95 percent.

- Despite consistent gains against inflation over the past decade, the ratio of the average teacher salary to per capita income of 1.79 barely registers above the 1981 level of 1.77.

- An adjustment for interstate differences in the cost of living shows that Michigan, Wisconsin, Illinois, Indiana, Nevada, and Connecticut pay teachers the most. A similar adjustment places Hawaii, South Dakota, North Dakota, Mississippi, and New Mexico on the bottom. Adjusting for the cost of living, the average Michigan teacher had the purchasing power of $43,677 compared to the Hawaiian level of $26,029.

- Estimated expenditures per pupil in membership (from current funds) averaged

$5,051 per pupil in 1991-92, ranging from a low of $2,827 in Utah to $8,601 in New Jersey, with New York, Connecticut and Alaska also spending more than $7,000 per pupil.

Trends Compared to Other Workers and Professions

- The 1991-92 average teacher salary of $34,213 is the highest ever average salary, but just $1,700 more than the $32,498 (in 1992 dollars) average teacher salary recorded in 1972. This increase averages about $75 per year.

- Teacher salaries kept pace with the growth in per capita Gross Domestic Product over the 1980's, but the ratio of 1.47 falls short of the 1.76 ratio in 1971 and the 1.82 ratio in 1961.

- In both 1956 and 1981, teacher salaries matched the mean annual earnings of the full-time worker in the U.S. economy, but teachers gained a 24 percent advantage by 1991.

- Teachers earned 17 percent more than the average government worker in 1991, well above the 11 percent advantage they enjoyed in 1962, 1968 and 1969.

- The average teacher had an estimated 15.4 years of experience in 1991-92 compared to 10.7 years in 1972. After adjusting for the experience differential, the average teacher now earns $1,900 (1992 dollars) less than in 1972.

- While salaries in other white-collar occupations remain high compared to teachers (ranging from 86 percent more for attorneys to 12 percent more for accountants), the earnings advantage of these white-collar occupations tends to be at the lowest level since the early 1980's and is lower than in 1962. Some of the relative decline of earnings in other occupations is attributable to a broadening of data collection to smaller firms.

- In both 1991 and 1992, the salary growth of assistant professors at public institutions matched the average salary increase of teachers. Both full and assistant professors experienced salary growth at the same rate as teachers since 1984.

- With a 3.6 percent growth rate, teacher salaries rose less than administrator, central office secretary, teacher aide, and bus driver earnings during the 1991-92 school year, but slightly faster than the earnings of custodians and cafeteria workers.

Beginning Teachers

- The average beginning teacher salary of $22,171 in 1991-92 rose 3.2 percent from the previous year compared to the average teacher salary increase of 3.6 percent.

- Seven states have starting salaries exceeding $24,000, and twelve have salaries exceeding $23,000.

- Alaska, New York, Connecticut, and New Jersey have starting salaries in excess of $26,000, while only Idaho, North Dakota, South Dakota, Louisiana and Utah report average starting salaries below $18,000.

- Beginning offers in business for new college graduates remained high compared to beginning teachers in spring 1992 (ranging from 49 percent more for engineers to 13 percent more for liberal arts graduates).

- Earnings increased at a faster rate for beginning teachers than in any other occupation in 1992. Only engineering outpaced teaching over the most recent two-year period.

- Beginning teachers comprised approximately 4.2 percent of the classroom teacher work force in 1990-91 (36 states reporting data), and about 4.4 percent in 1991-92 (29 states reporting data).

- Based on data from 28 states, the number of experienced teachers reentering the classroom fell short of the number of beginning teachers in 1990-91 (3.4 percent) and 1991-92 (3.3 percent).

- The retirement rate (which includes nonteaching professional personnel in some states) averaged 2.6 percent for 35 states reporting data in 1989-90 and 2.8 percent in 1990-91.

Figure 1

AVERAGE TEACHER SALARY 1991-92

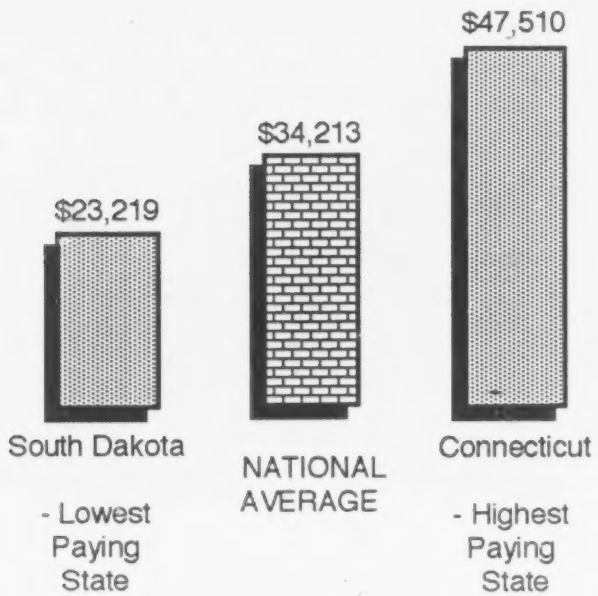


Figure 2

AVERAGE BEGINNING TEACHER SALARY 1991-92

Figure 3

TEACHER SALARIES KEEP EVEN WITH INFLATION

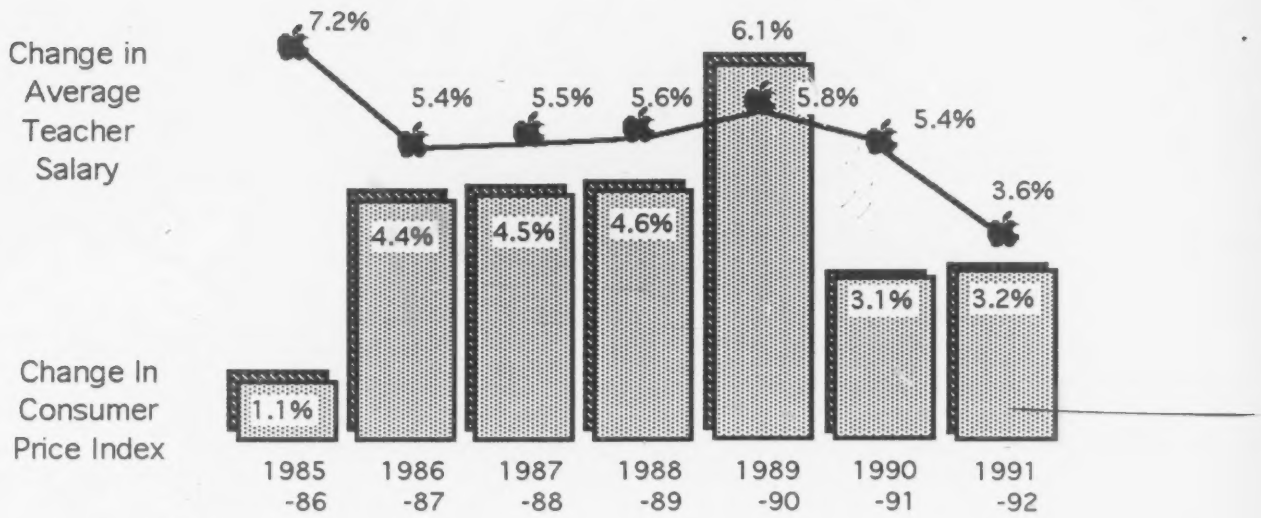


Figure 4

AVERAGE TEACHER SALARY EXCEEDS
1972 LEVELS BY ABOUT $1,700

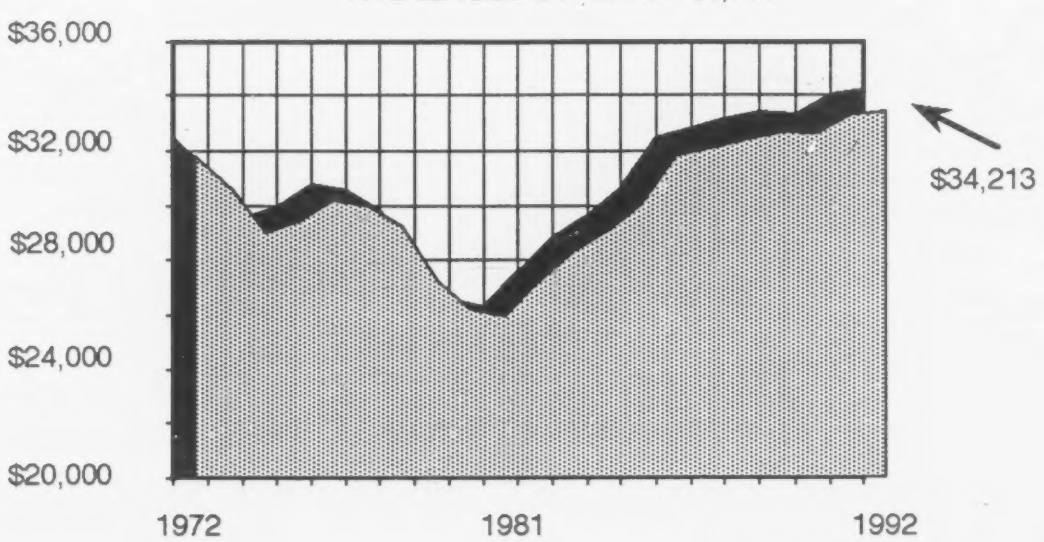


Figure 5

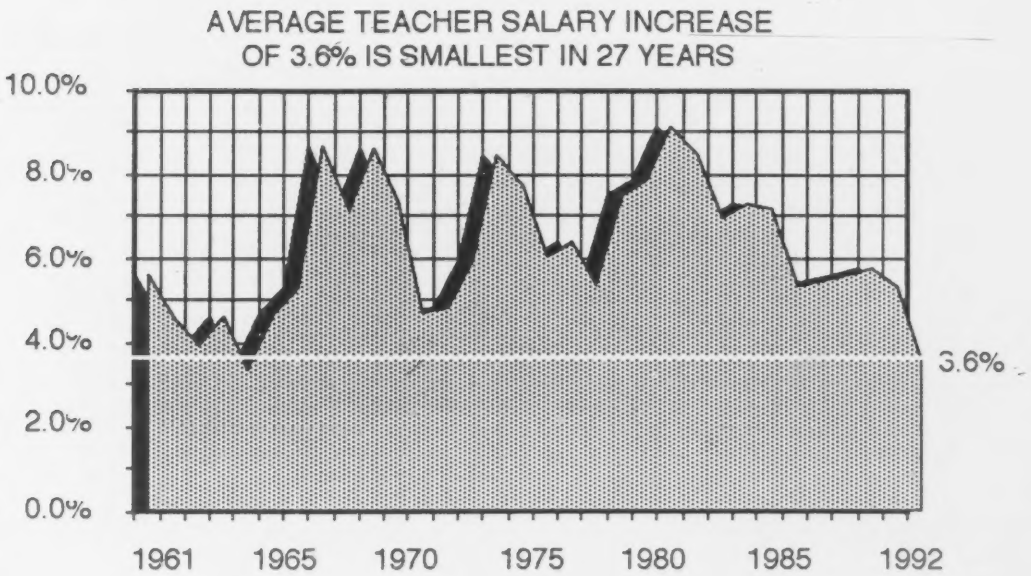


Figure 6

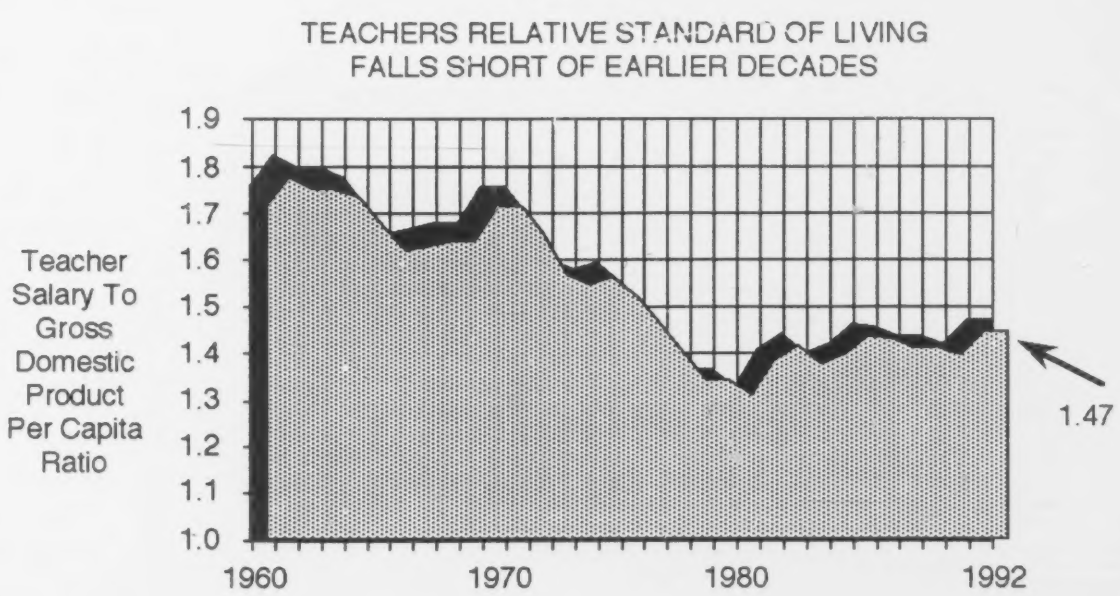


Figure 7

AVERAGE TEACHER SALARY IN 1991 FALLS
SHORT OF EARNINGS IN OTHER PROFESSIONS

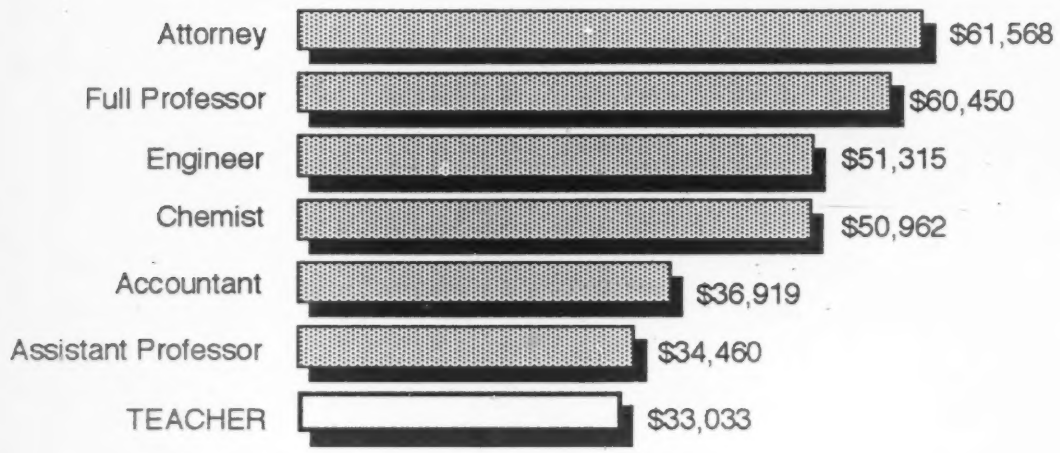
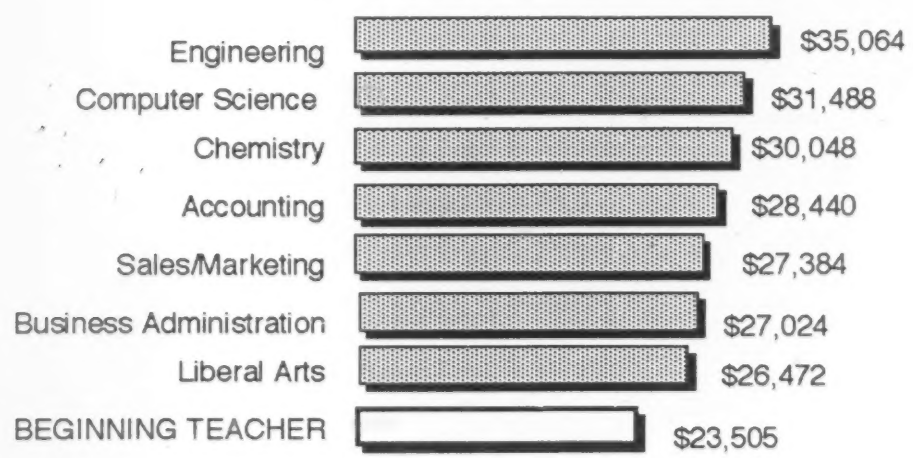


Figure 8

NEW TEACHER SALARIES LAG BEHIND
BEGINNING SALARIES IN OTHER PROFESSIONS

ESTIMATED ANNUAL SALARIES --SPRING 1992



Note: Expected salary of spring graduates. Beginning teacher salary is based on an estimated 3.5 percent increase for the 1992-93 school year.

Figure 9

Public Spending On Education As A Percent of Gross Domestic Product

(Current Expenditures)

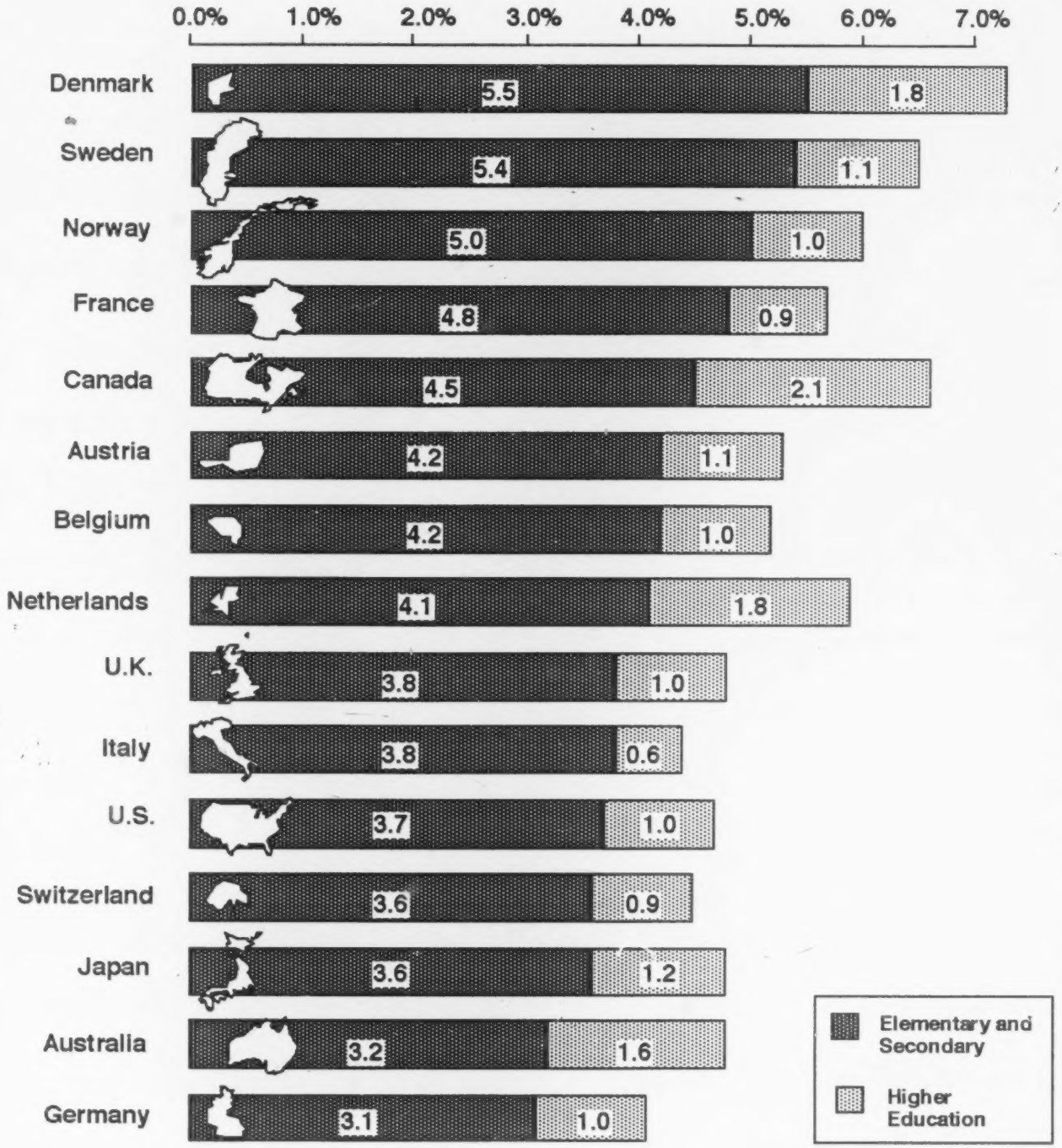
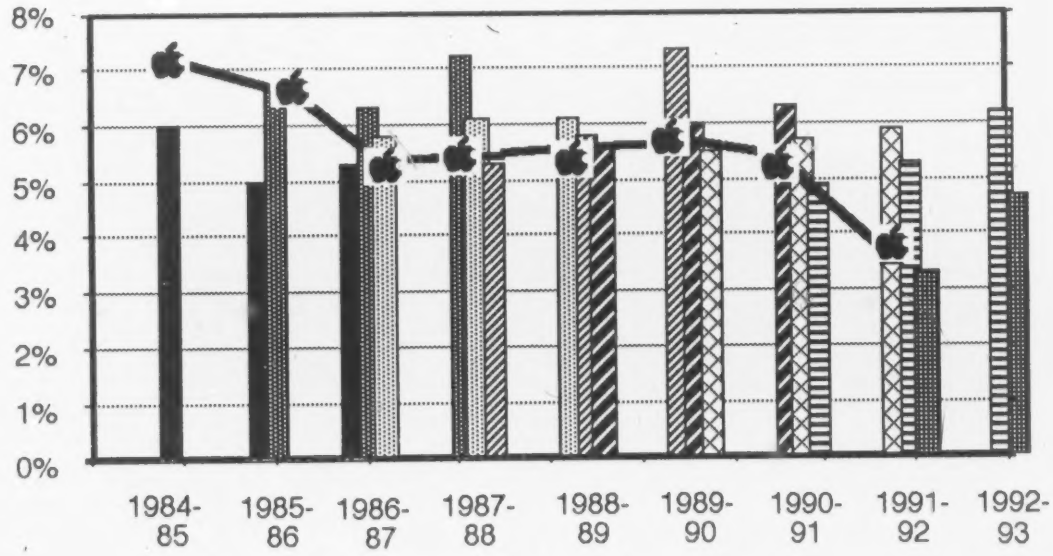


Figure 10

Average Annual Salary Adjustments for Teachers
--Projections for 1992-93



Note: Data applies to negotiated agreements covering 1,000 or more workers as reported in Current Wage Developments

- Reported in CWD, Sept 1984-August 1985
- Reported in CWD, Sept 1985-August 1986
- Reported in CWD, Sept 1986-July 1987
- Reported in CWD, August 1987-July 1988
- Reported in CWD, August 1988-August 1989
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I. State Comparisons

Developments in Teacher Salaries, 1991-92. In 1991-92, the average public elementary and secondary school teacher in the United States earned a salary of approximately $34,213, an increase of 3.6 percent over the previous year. In 1991, Alaska surrendered its long time ranking as the highest paying state to Connecticut, which had an average teacher salary of $47,510. As shown in Table I-1, Alaska, New York, New Jersey, Michigan, and California all had average salaries over $40,000--about 20 to 30 percent above the national average. South Dakota ranked last with an average salary of $23,291. North Dakota and Mississippi also had average salaries below $25,000. Beginning teachers in four states averaged more than $25,000 (See Table III-1).

Only one state experienced double-digit salary growth. Arkansas reported the highest salary increase--13.8 percent for 1991-92 (see Table I-2). Only Pennsylvania and Connecticut posted gains above 7 percent. Arkansas moved from the 49th to the 42nd ranking in a single year. Over the past two years, Connecticut, New Jersey, Pennsylvania, Vermont, Kentucky, West Virginia and Arkansas reported teacher salary gains of at least 15 percent. During the same period, average salaries increased less than 5 percent in Alaska, Wyoming, Washington, D.C., Delaware, Minnesota, Virginia, and South Carolina.

Gains During the 1980's. Eleven-year trends appear in Table I-3. The average salary grew by about 175 percent in Connecticut, and by about 150 percent in Vermont and New Hampshire compared to the national average of 95 percent. Average salaries improved no better than 60 percent over the eleven-year span in Louisiana (59 percent), Utah (57 percent), New Mexico (56 percent), and Alaska (51 percent).

Teacher Salaries Compared to the Average Annual Earnings of Private Sector Workers. States vary considerably according to their economic condition and the cost-of-living. Table I-4 compares the average teacher salary to the average annual earnings of all workers in the private sector. The annual pay data apply to workers covered by State and Federal Unemployment Insurance programs and are compiled from reports submitted by employers for more than 93 million workers. Generally excluded from unemployment insurance are most agriculture workers on small farms, railroad workers, most domestic employees, student workers and the self-employed. This comparison serves only as an index to adjust for unique conditions within each state and to facilitate interstate comparisons. It is not presented as a standard by which to judge how much teachers should get paid relative to the average worker.

As measured by the ratio of the average teacher salary in 1991-92 to the estimated average annual earnings in the private sector in 1991, Rhode Island ranks

first, with a ratio of 1.76 compared to the national average of 1.48. Several high-paying states, including New York and New Jersey, fall to the middle. The District of Columbia, with the 7th highest teacher pay in the nation, ranks dead last according to the private sector pay ratio comparison. Twenty of the states have a ratio of between 1.40 and 1.50. While some states argue that they cannot pay teachers well because the taxpayers in the state do not get paid well, states with the lowest average teacher salaries tend to rank lowest when teacher salaries are compared to the average worker. Alabama, Idaho, Utah, Oklahoma, Louisiana and West Virginia rank in the bottom ten on both measures. However, the state paying teachers the least, South Dakota, ranks 32nd according to the ratio. Mississippi improves from the 50th ranking to 38th.

The ranking according to the ratio of the average teacher salary to private sector employee earnings for 1981 is shown as the last column of Table I-4. The rankings of several states changed dramatically over the intervening ten years. Massachusetts, North Carolina, the District of Columbia, and Utah fell at least 20 positions. Alaska, Connecticut, Wyoming, Vermont, Indiana, Kentucky and New Hampshire gained at least 20 positions.

Teacher Salaries Compared to Per Capita Personal Income. Table I-5 is constructed similarly to Table I-4, except that teacher salaries are compared to per capita personal income in the state. Personal income is a combination of earnings in the workplace, minus contributions for social insurance, plus dividends, interest, rent and transfer payments. Per capita income varies among states because of cost-of-living differences, differing concentrations of poor people and demographic factors (e.g., families are large in Utah, thus driving down per capita income). Again, the comparison to personal income is only an index designated to enhance interstate comparison, not a standard by which to judge how much teachers should be paid. Because 1991-92 average teacher salaries are compared to 1991 per capita personal income, the ratio of the two measures slightly overstates how much teachers earn relative to the per capita income.

Despite substantial gains over the inflation rate during the 1980's, teacher salary growth barely kept pace with the growth in personal income. Even in 1980-81, when inflation adjusted teacher pay hit a thirty-year low, the teacher pay to per capita income ratio was 1.77, about the same as it is today. The national average of the teacher salary to the per capita personal income ratio is 1.79, slightly ahead of a 1.78 ratio in both 1990-91 and 1989-90, 1.80 in 1988-89, 1.83 in 1987-88 and 1.85 in 1986-87. Half the states had a ratio of between 1.70 and 1.90. These states cover every region of the country. Only Michigan, Rhode Island, Pennsylvania, and Alaska have ratios of 2.00 or better. Five of the top ten states have above average teacher salaries. However, some high paying states--New Jersey, Massachusetts, the District of Columbia, and New Hampshire--rank in the bottom ten.

Several states dramatically shifted their rankings over the decade. In 1980-81, Connecticut had the 50th lowest ratio, but in 1991-92, it ranked the 17th highest. On

the other hand, Utah slipped from the number one ranking to 16th, Washington fell from 8th to 27th, New Mexico shifted from 5th to 20th, and North Carolina dipped to 30th from the 9th position.

Teacher Salaries Adjusted by the AFT Cost-of-Living Index. While the greatest variation in cost-of-living occurs within a state between rural and urban locations, a cost-of-living adjustment among states makes sense when states serve as the basis of comparing earnings. Cost-of-living variations among states are considered in adjusting and re-ranking the average teacher salary displayed in Table I-6.

The interstate cost-of-living index was developed by the AFT Research Department using existing data on the cost-of-living in a majority of the nation's SMSA's to develop cost-of-living indices for each state. Using regression techniques, models for each of four regions were developed to explain differences in the cost-of-living between SMSA's. The regressions coefficients were then used as weights and combined with comparable state level data to establish the state cost-of-living index. The state cost-of-living index was normalized so that 1.00 represents the national average for all states weighted by their population. Details of the index and the methodology are in, "An Interstate Cost-of-Living Index," Educational Evaluation and Policy Analysis (Spring, 1991). The AFT index is a revision of the index presented in editions of this report published since 1988. The index changed a little for some states because of the availability of 1990 Census data for the median house value and population density variables used in calculating the index. The 1987 version of this report contained a similar cost-of-living index developed by Walter W. McMahon and Carrol Melton ("Measuring Cost-of-Living Variation," Industrial Relations, Vol. 17, No. 3, 1978 p. 331).

Michigan, Wisconsin, Illinois, Indiana, Nevada, and Connecticut rank as the highest-paying states after adjusting for the cost-of-living. New York, Connecticut, Rhode Island, Pennsylvania and California, despite having indexes at least 5 percent greater than the national average, still list in the top 10. High-paying Alaska, Massachusetts, the District of Columbia, Hawaii and New Jersey drop substantially in the rankings. Of the ten lowest paying states, eight ranked in the bottom ten even after the cost-of-living adjustment. The rankings of most southern states improve only modestly when accounting for the cost-of-living variation.

Teacher Salaries Adjusted for Interstate Differences in Teacher Experience. According to the 1987-88 School and Staffing Survey of the U.S. Department of Education, the average experience of teachers is 14.6 years and ranges from a low of 11.6 years in Utah to 18.8 years in the District of Columbia and 17.6 years in Rhode Island. By taking the difference between the average salary and the beginning salary (see Table III-1), an annual salary change is calculated in Table I-7. The annual change averages $815--about 2.3 percent of the national average--and ranges from $396 in Alabama to $1,263 in Connecticut. Multiplying the annual salary change by the experience differential yields a salary adjustment averaging $0 but ranging from

minus $3,505 in Washington, D.C. to plus $2,359 in Utah. After applying the salary adjustment to the average salary, Alaska, Connecticut, New York, and New Jersey still rank as the four highest paying states. Only D.C. and Massachusetts drop out of the top ten. South Dakota, Mississippi, North Dakota, and New Mexico still rank as the lowest paying states.

Expenditures Per Pupil. During 1991-92, approximately $5,051 in current funds (a figure excluding capital outlay debt service and bond and construction expenses) were spent on each enrolled pupil (measured by October 1 membership or comparable figure) in the typical state. Expenditures per pupil rose by 3.9 percent over the 1990-91 estimate of $4,861, and 9.3 percent over the 1989-90 expenditure figure of $4,622, the final revised figure reported by the National Center for Educational Statistics. In contrast, the average teacher salary had a one-year gain of 3.6 percent and a two-year gain of 9.1 percent (Table I-2).

Most of the estimates in Table I-8 and Table I-9 are based on actual data reported by states but are adjusted to reflect the definition of expenditure per pupil in membership reported by the U.S. Department of Education. Frequently, early estimates of the National Center for Educational Statistics are used. In the prior version of this AFT report, the 1988-89 U.S. average expenditure per pupil was estimated to be $4,228 while the final revised expenditure reported by the U.S. Department of Education was $4,299. Similarly, the 1989-90 AFT estimate was $4,575 while the revised actual expenditures reported by the U.S. Department of Education was $4,622.

During the 1990-91 school year, New Jersey and Washington, D.C. overtook Alaska as the highest spending states. As shown in Table I-8, New Jersey spent an estimated 70 percent more than the national average, followed by the District of Columbia, Alaska, Connecticut, and New York, each spending at least 50 percent more than the national average. Utah, Mississippi, Idaho, and Alabama spent under $3,500 per pupil. State rankings for per pupil expenditures and average teacher salary did not always match closely. California, for example, ranked 31st on expenditures per pupil, but the state has the 6th highest average teacher salary. Vermont ranked 7th on spending, but only 21st according to average teacher salary.

Regional Rankings. Perhaps the most common way to improve interstate comparisons is to make comparisons within the same region, as in Table I-10. Figured this way, Connecticut paid the most in New England; New York topped the Mideast; Michigan paid the most in the Great Lakes area; and Iowa led the five other Plains states. Virginia topped the Southeast by $2,000; Arizona ranked highest in the Southwest; Colorado outpaced Wyoming by $2,500 in the Rocky Mountain region; and, excluding Alaska, California ranked highest in the Far West with a $3,500 advantage over Nevada.

TABLE I–1

THE AVERAGE TEACHER SALARY IN 1991–92
STATE RANKINGS

Rank	State	Average Salary		Percent of U.S. Average
1	Connecticut	$47,510		138.9%
2	Alaska	43,800	b	128.0%
3	New York	43,335	c	126.7%
4	New Jersey	41,027		119.9%
5	Michigan	40,700	a	119.0%
6	California	40,425	b	118.2%
7	D.C.	39,673		116.0%
8	Rhode Island	39,397		115.2%
9	Maryland	39,073		114.2%
10	Pennsylvania	38,715		113.2%
11	Massachusetts	37,256		108.9%
12	Nevada	36,989	f	108.1%
13	Illinois	36,528	a	106.8%
14	Wisconsin	35,227		103.0%
15	Washington	34,880		101.9%
16	Delaware	34,548		101.0%
17	Hawaii	34,488		100.8%
18	Indiana	34,247		100.1%
19	Oregon	34,101	f	99.7%
20	Minnesota	33,700		98.5%
21	Vermont	33,200		97.0%
22	Ohio	33,198	a	97.0%
23	New Hampshire	33,170		97.0%
24	Colorado	33,072		96.7%
25	Virginia	32,243		94.2%
26	Arizona	31,176		91.1%
27	Florida	31,070		90.8%
28	Kentucky	30,880		90.3%
29	Wyoming	30,425		88.9%
30	Maine	30,097		88.0%
31	Texas	29,719	e	86.9%
32	Georgia	29,539	a	86.3%
33	North Carolina	29,334	a	85.7%
34	Iowa	29,196		85.3%
35	Kansas	29,101	d	85.1%
36	Missouri	28,923		84.5%
37	Tennessee	28,621		83.7%
38	South Carolina	28,209	ae	82.5%
39	Montana	27,590		80.6%
40	West Virginia	27,366		80.0%
41	Nebraska	27,231		79.6%
42	Arkansas	27,168	a	79.4%
43	Alabama	26,954		78.8%
44	Utah	26,524	ae	77.5%
45	Oklahoma	26,514		77.5%
46	Louisiana	26,411		77.2%
47	Idaho	26,345		77.0%
48	New Mexico	26,244		76.7%
49	North Dakota	24,495		71.6%
50	Mississippi	24,368		71.2%
51	South Dakota	23,291		68.1%
	U.S. Average	**34,213**		100.0%
	Virgin Islands	31,113		90.9%

a=estimate or preliminary; b=AFT estimate; c=median; d=estimated to exclude fringe benefits; e=includes incentive pay or career ladder stipends.
f=includes 6% pension pick-up in Oregon, and 9.5% in Nevada.

TABLE I–2

TRENDS IN THE AVERAGE SALARY, 1989–90 TO 1991–92

State	Average Salary 1989–90	Rank	Average Salary 1990–91	Rank	Average Salary 1991–92	Rank	Percent Change 1989–90 to 1990–91	Percent Change 1990–91 to 1991–92	Percent Change 1989–90 to 1991–92
Connecticut	$40,768	2	$44,406	1	47,510	1	8.9%	7.0%	16.5%
Alaska	43,125	1	43,427	2	43,800	2	0.7%	0.9%	1.6%
New York	38,925	3	42,080	3	43,335	3	8.1%	3.0%	11.3%
New Jersey	35,676	8	38,411	7	41,027	4	7.7%	6.8%	15.0%
Michigan	38,326	5	39,910	4	40,700	5	4.1%	2.0%	6.2%
California	37,795	6	39,439	6	40,425	6	4.3%	2.5%	7.0%
D.C.	38,402	4	39,467	5	39,673	7	2.8%	0.5%	3.3%
Rhode Island	36,057	9	38,220	9	39,397	8	6.0%	3.1%	9.3%
Maryland	36,601	7	38,312	8	39,073	9	4.7%	2.0%	6.8%
Pennsylvania	33,338	13	36,057	11	38,715	10	8.2%	7.4%	16.1%
Massachusetts	34,712	10	36,460	10	37,256	11	5.0%	2.2%	7.3%
Nevada	33,493	11	35,269	12	36,989	12	5.3%	4.9%	10.4%
Illinois	32,815	14	34,609	14	36,528	13	5.5%	5.5%	11.3%
Wisconsin	31,921	17	33,077	18	35,227	14	3.6%	6.5%	10.4%
Washington	30,457	23	33,079	17	34,880	15	8.6%	5.4%	14.5%
Delaware	33,377	12	35,246	13	34,548	16	5.6%	-2.0%	3.5%
Hawaii	32,252	15	33,548	15	34,488	17	4.0%	2.8%	6.9%
Indiana	31,101	18	32,930	19	34,247	18	5.9%	4.0%	10.1%
Oregon	30,842	20	32,295	20	34,101	19	4.7%	5.6%	10.6%
Minnesota	32,190	16	33,128	16	33,700	20	2.9%	1.7%	4.7%
Vermont	28,849	26	31,236	24	33,200	21	8.3%	6.3%	15.1%
Ohio	30,553	22	31,964	21	33,198	22	4.6%	3.9%	8.7%
New Hampshire	28,986	25	31,201	25	33,170	23	7.6%	6.3%	14.4%
Colorado	30,758	21	31,819	22	33,072	24	3.4%	3.9%	7.5%
Virginia	30,958	19	31,329	23	32,243	25	1.2%	2.9%	4.2%
Arizona	29,402	24	30,773	26	31,176	26	4.7%	1.3%	6.0%
Florida	28,803	27	30,555	27	31,070	27	6.1%	1.7%	7.9%
Kentucky	26,292	38	29,115	29	30,880	28	10.7%	6.1%	17.5%
Wyoming	28,188	28	28,996	30	30,425	29	2.9%	4.9%	7.9%
Maine	26,881	36	28,523	32	30,097	30	6.1%	5.5%	12.0%
Texas	27,496	31	28,631	31	29,719	31	4.1%	3.8%	8.1%
Georgia	27,966	29	29,172	28	29,539	32	4.3%	1.3%	5.6%
North Carolina	27,883	30	28,276	35	29,334	33	1.4%	3.7%	5.2%
Iowa	26,747	37	27,977	38	29,196	34	4.6%	4.4%	9.2%
Kansas	27,172	33	28,175	37	29,101	35	3.7%	3.3%	7.1%
Missouri	27,094	34	28,286	34	28,923	36	4.4%	2.3%	6.8%
Tennessee	27,052	35	28,248	36	28,621	37	4.4%	1.3%	5.8%
South Carolina	27,217	32	28,301	33	28,209	38	4.0%	-0.3%	3.6%
Montana	25,081	40	26,774	40	27,590	39	6.8%	3.0%	10.0%
West Virginia	22,842	50	25,967	43	27,366	40	13.7%	5.4%	19.8%
Nebraska	25,505	39	26,592	41	27,231	41	4.3%	2.4%	6.8%
Arkansas	22,930	49	23,878	49	27,168	42	4.1%	13.8%	18.5%
Alabama	24,816	41	26,874	39	26,954	43	8.3%	0.3%	8.6%
Utah	23,686	46	25,578	46	26,524	44	8.0%	3.7%	12.0%
Oklahoma	23,484	47	25,580	45	26,514	45	8.9%	3.7%	12.9%
Louisiana	24,300	44	26,170	42	26,411	46	7.7%	0.9%	8.7%
Idaho	23,861	45	25,510	47	26,345	47	6.9%	3.3%	10.4%
New Mexico	24,811	42	25,775	44	26,244	48	3.9%	1.8%	5.8%
North Dakota	23,016	48	23,574	50	24,495	49	2.4%	3.9%	6.4%
Mississippi	24,365	43	24,306	48	24,368	50	-0.2%	0.3%	0.0%
South Dakota	21,300	51	22,376	51	23,291	51	5.1%	4.1%	9.3%
U.S. AVERAGE	**$31,347**		**$33,033**		**$34,213**		**5.4%**	**3.6%**	**9.1%**
Virgin Islands	29,048		31,113		31,113		7.1%	0.0%	7.1%

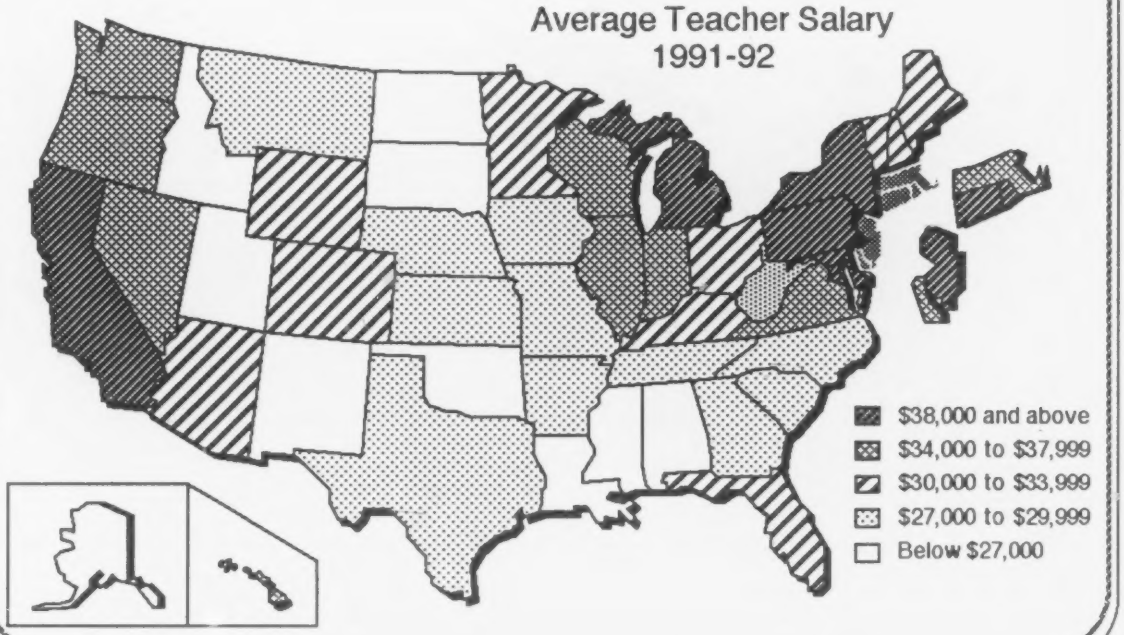
TABLE I–3

AVERAGE TEACHER SALARIES FOR 1980–81, AND 1991–92

State	Average Salary 1980–81	Average Salary 1991–92	Rank 1980–81	Rank 1991–92	Percent of U.S. Average 1980–81	Percent of U.S. Average 1991–92	Change 1980–81 to 1991–92	Rank
Connecticut	$17,404	$47,510	21	1	99%	139%	173.0%	1
Vermont	13,006	33,200	51	21	74%	97%	155.3%	2
New Hampshire	13,412	33,170	48	23	76%	97%	147.3%	3
New Jersey	18,245	41,027	13	4	104%	120%	124.9%	4
Pennsylvania	17,890	38,715	17	10	102%	113%	116.4%	5
Maine	13,994	30,097	45	30	80%	88%	115.1%	6
Nevada	17,700	36,989	19	12	101%	108%	109.0%	7
Virginia	15,535	32,243	33	25	89%	94%	107.6%	8
Maryland	18,998	39,073	10	9	108%	114%	105.7%	9
Arkansas	13,273	27,168	49	42	76%	79%	104.7%	10
New York	21,326	43,335	3	3	122%	127%	103.2%	11
Florida	15,406	31,070	36	27	88%	91%	101.7%	12
Wisconsin	17,607	35,227	20	14	100%	103%	100.1%	13
Massachusetts	18,703	37,256	12	11	107%	109%	99.2%	14
Rhode Island	19,803	39,367	8	7	113%	115%	98.8%	15
Indiana	17,255	34,247	22	18	98%	100%	98.5%	16
South Carolina	14,353	28,209	44	38	82%	82%	96.5%	17
Ohio	16,904	33,198	24	22	96%	97%	96.4%	18
Kentucky	15,750	30,880	31	28	90%	90%	96.1%	19
California	20,729	40,425	7	6	118%	118%	95.0%	20
Michigan	21,213	40,700	5	5	121%	119%	91.9%	21
Georgia	15,445	29,539	34	32	88%	86%	91.3%	22
Kansas	15,250	29,101	37	35	87%	85%	90.8%	23
Delaware	18,205	34,548	14	16	104%	101%	89.8%	24
Minnesota	17,777	33,700	18	20	101%	99%	89.6%	25
Tennessee	15,118	28,621	39	37	86%	84%	89.3%	26
Oregon	18,047	34,101	15	19	103%	100%	89.0%	27
Texas	15,728	29,719	32	31	90%	87%	89.0%	28
Illinois	19,425	36,528	9	13	111%	107%	88.0%	29
Missouri	15,421	28,923	35	36	88%	85%	87.6%	30
Mississippi	13,017	24,368	50	50	74%	71%	87.2%	31
North Carolina	15,858	29,334	30	33	90%	86%	85.0%	32
Colorado	17,917	33,072	16	24	102%	97%	84.6%	33
West Virginia	14,948	27,366	41	40	85%	80%	83.1%	34
Nebraska	14,882	27,231	42	41	85%	80%	83.0%	35
Oklahoma	14,492	26,514	43	45	83%	77%	83.0%	36
Arizona	17,201	31,176	23	26	98%	91%	81.2%	37
Iowa	16,131	29,196	28	34	92%	85%	81.0%	38
Alabama	15,205	26,954	38	43	87%	79%	77.3%	39
North Dakota	13,864	24,495	46	49	79%	72%	76.7%	40
Idaho	15,109	26,345	40	47	86%	77%	74.4%	41
Montana	15,954	27,590	29	39	91%	81%	72.9%	42
South Dakota	13,674	23,291	47	51	78%	68%	70.3%	43
D.C.	22,882	38,772	2	8	130%	113%	69.4%	44
Washington	21,268	34,880	4	15	121%	102%	64.0%	45
Hawaii	21,147	34,488	6	17	121%	101%	63.1%	46
Wyoming	18,718	30,425	11	29	107%	89%	62.5%	47
Louisiana	16,557	26,411	27	46	94%	77%	59.5%	48
Utah	16,864	26,524	25	44	96%	78%	57.3%	49
New Mexico	16,812	26,244	26	48	96%	77%	56.1%	50
Alaska	29,048	43,800	1	2	166%	128%	50.8%	51
U.S. AVERAGE	**$17,544**	**$34,213**			**100%**	**100%**	95.0%	

Map 1

Average Teacher Salary
1991-92



Map 2

Average Teacher Salary Increase
1980-81 to 1991-92

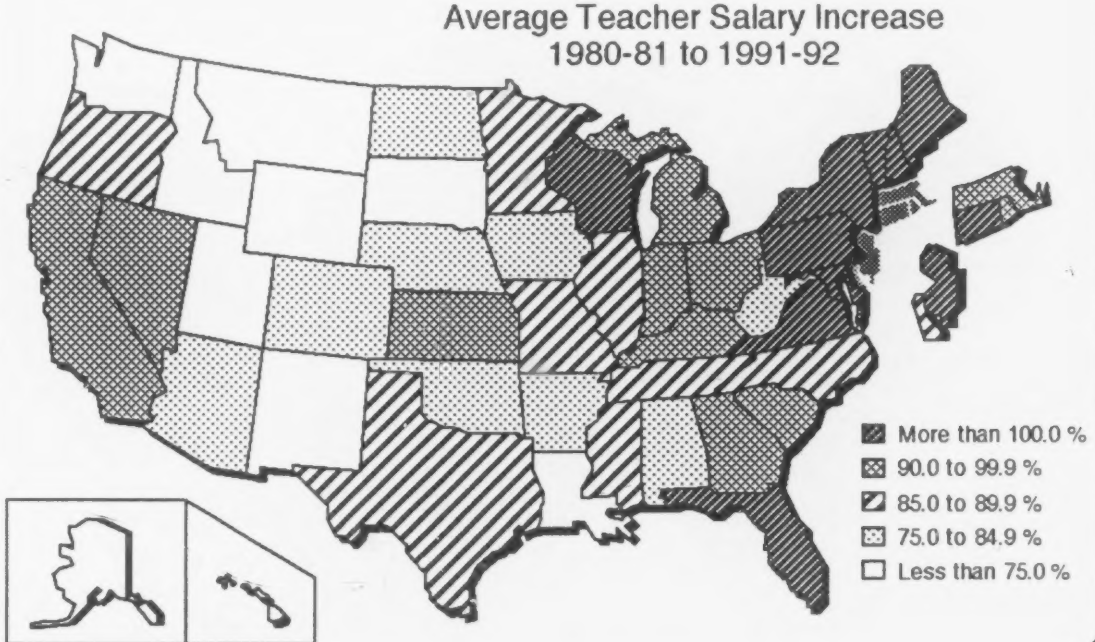


TABLE I–4

AVERAGE SALARY OF TEACHERS IN 1991–92 COMPARED TO ANNUAL EARNINGS IN THE PRIVATE SECTOR, 1991

State	Average Teachers Salary	Private Sector Annual Earnings	Ratio of Teachers To Private Sector	Rank 1992	Rank 1991	Rank 1981
Rhode Island	$39,367	$22,318	1.76	1	1	2
Nevada	36,989	21,629	1.71	2	2	16
Wisconsin	35,227	21,274	1.66	3	4	10
Pennsylvania	38,715	23,761	1.63	4	7	18
Alaska	43,800	26,930	1.63	5	13	23
Maryland	39,073	24,291	1.61	6	3	4
Montana	27,590	17,273	1.60	7	6	14
Connecticut	47,510	29,887	1.59	8	11	39
Wyoming	30,425	19,189	1.59	9	18	38
Oregon	34,101	21,577	1.58	10	8	12
Vermont	33,200	21,382	1.55	11	9	45
Michigan	40,700	26,239	1.55	12	5	17
Indiana	34,247	22,197	1.54	13	12	35
Washington	34,880	22,742	1.53	14	15	5
California	40,425	26,509	1.52	15	10	6
Kentucky	30,880	20,323	1.52	16	19	37
Hawaii	34,488	22,767	1.51	17	14	1
Iowa	29,196	19,378	1.51	18	17	24
Nebraska	27,231	18,290	1.49	19	21	25
Florida	31,070	21,165	1.47	20	16	22
Maine	30,097	20,534	1.47	21	25	26
New York	43,335	29,572	1.47	22	23	8
Arkansas	27,168	18,593	1.46	23	43	41
New Hampshire	33,170	22,751	1.46	24	36	47
Delaware	34,548	23,773	1.45	25	26	33
Colorado	33,072	22,919	1.44	26	31	28
Minnesota	33,700	23,367	1.44	27	24	13
Arizona	31,176	21,800	1.43	28	22	19
North Dakota	24,495	17,142	1.43	29	38	46
Illinois	36,528	25,708	1.42	30	39	20
Ohio	33,198	23,389	1.42	31	30	44
Virginia	32,243	22,777	1.42	32	27	27
South Dakota	23,291	16,550	1.41	33	29	15
South Carolina	28,209	20,051	1.41	34	20	29
New Jersey	41,027	29,171	1.41	35	40	31
North Carolina	29,334	20,864	1.41	36	28	9
Kansas	29,101	20,717	1.40	37	32	40
New Mexico	26,244	18,985	1.38	38	35	11
Massachusetts	37,256	27,641	1.35	39	37	7
Mississippi	24,368	18,137	1.34	40	34	42
Missouri	28,923	21,620	1.34	41	45	43
Idaho	26,345	19,809	1.33	42	41	36
Tennessee	28,621	21,546	1.33	43	33	30
Alabama	26,954	20,599	1.31	44	42	32
West Virginia	27,366	21,187	1.29	45	51	50
Utah	26,524	20,537	1.29	46	46	21
Oklahoma	26,514	20,645	1.28	47	47	51
Georgia	29,539	23,030	1.28	48	44	34
Texas	29,719	23,736	1.25	49	49	49
Louisiana	26,411	21,235	1.24	50	50	48
D.C.	39,673	32,125	1.23	51	48	3
U.S. AVERAGE	$34,213	$23,176	1.48			

TABLE I-5

AVERAGE SALARY OF TEACHERS IN 1991-92 COMPARED TO 1991 PER CAPITA PERSONAL INCOME

State	Average Teacher Salary	Per Capita Personal Income	Ratio of Salary to Per Capita Income			Rank		
			1991-92	1990-91	1980-81	91-92	90-91	80-81
Michigan	$40,700	$18,679	$2	2.18	2.09	1	1	3
Rhode Island	39,367	18,840	2.09	2.03	2.08	2	2	4
Pennsylvania	38,715	19,128	2.02	1.93	1.81	3	6	22
Alaska	43,800	21,932	2.00	2.00	2.10	4	3	2
Indiana	34,247	17,217	1.99	1.95	1.87	5	4	18
Kentucky	30,880	15,539	1.99	1.95	1.96	6	5	11
Wisconsin	35,227	18,046	1.95	1.89	1.79	7	10	24
Oregon	34,101	17,592	1.94	1.88	1.83	8	13	21
West Virginia	27,366	14,174	1.93	1.89	1.89	9	11	14
New York	43,335	22,456	1.93	1.91	1.99	10	7	7
California	40,425	20,952	1.93	1.90	1.79	11	9	26
Nevada	36,989	19,175	1.93	1.82	1.55	12	17	46
Arizona	31,176	16,401	1.90	1.89	1.88	13	12	17
Vermont	33,200	17,747	1.87	1.79	1.52	14	21	49
Ohio	33,198	17,916	1.85	1.83	1.74	15	15	33
Arkansas	27,168	14,753	1.84	1.68	1.78	16	36	27
Connecticut	47,510	25,881	1.84	1.75	1.44	17	29	50
South Carolina	28,209	15,420	1.83	1.87	1.89	18	14	13
Mississippi	24,368	13,343	1.83	1.91	1.88	19	8	16
Utah	26,524	14,529	1.83	1.82	2.12	20	18	1
Washington	34,880	19,442	1.79	1.75	1.98	21	27	8
Wyoming	30,425	17,118	1.78	1.77	1.65	22	25	39
Maryland	39,073	22,080	1.77	1.75	1.76	23	28	32
New Mexico	26,244	14,844	1.77	1.81	2.06	24	20	5
Minnesota	33,700	19,107	1.76	1.77	1.77	25	24	29
North Carolina	29,334	16,642	1.76	1.75	1.98	26	30	9
Illinois	36,528	20,824	1.75	1.70	1.79	27	33	23
Tennessee	28,621	16,325	1.75	1.79	1.88	28	22	15
Louisiana	26,411	15,143	1.74	1.82	1.91	29	16	12
Maine	30,097	17,306	1.74	1.66	1.70	30	37	34
Alabama	26,954	15,567	1.73	1.81	1.97	31	19	10
Montana	27,590	16,043	1.72	1.77	1.79	32	23	25
Texas	29,719	17,305	1.72	1.74	1.61	33	31	41
Idaho	26,345	15,401	1.71	1.68	1.76	34	35	30
Colorado	33,072	19,440	1.70	1.69	1.69	35	34	36
Georgia	29,539	17,364	1.70	1.72	1.85	36	32	20
Delaware	34,548	20,349	1.70	1.76	1.78	37	26	28
Oklahoma	26,514	15,827	1.68	1.66	1.54	38	39	47
Iowa	29,196	17,505	1.67	1.62	1.69	39	42	35
Florida	31,070	18,880	1.65	1.64	1.58	40	40	44
Massachusetts	37,256	22,897	1.63	1.61	1.76	41	44	31
D.C.	39,673	24,439	1.62	1.63	1.86	42	41	19
Missouri	28,923	17,842	1.62	1.62	1.66	43	43	38
Hawaii	34,488	21,306	1.62	1.66	1.99	44	38	6
New Jersey	41,027	25,372	1.62	1.54	1.58	45	49	45
Virginia	32,243	19,976	1.61	1.59	1.58	46	45	43
New Hampshire	33,170	20,951	1.58	1.50	1.37	47	50	51
Kansas	29,101	18,511	1.57	1.57	1.53	48	46	48
Nebraska	27,231	17,852	1.53	1.54	1.60	49	48	42
North Dakota	24,495	16,088	1.52	1.55	1.62	50	47	40
South Dakota	23,291	16,392	1.42	1.41	1.66	51	51	37
U.S. AVERAGE	$34,213	$19,082	1.79	1.78	1.77			

TABLE I–6

STATE RANKINGS BY 1991–92 AVERAGE TEACHER SALARY ADJUSTED BY THE 1990 AFT INTERSTATE COST–OF–LIVING INDEX

State	Average Salary	Cost of Living Index	Salary Adjust–ment	Adjusted Average Salary	Adjusted Rank	Original Rank
Michigan	$40,700	93.2	$2,977	$43,677	1	5
Wisconsin	35,227	92.2	2,992	38,219	2	14
Illinois	36,528	96.6	1,292	37,820	3	13
Indiana	34,247	90.6	3,541	37,788	4	18
Nevada	36,989	98.0	766	37,755	5	12
Connecticut	47,510	128.1	(10,422)	37,088	6	1
New York	43,335	117.6	(6,499)	36,836	7	3
California	40,425	110.9	(3,980)	36,445	9	6
Pennsylvania	38,715	106.9	(2,515)	36,200	8	10
Rhode Island	39,367	108.8	(3,195)	36,172	10	9
Oregon	34,101	94.9	1,814	35,915	11	19
Minnesota	33,700	93.9	2,202	35,902	12	20
Ohio	33,198	93.1	2,468	35,666	13	22
Washington	34,880	98.2	626	35,506	14	15
Virginia	32,243	92.0	2,822	35,065	15	25
Kentucky	30,880	88.1	4,152	35,032	16	28
Maryland	39,073	115.0	(5,096)	33,977	17	8
Florida	31,070	92.2	2,625	33,695	18	27
Colorado	33,072	99.1	308	33,380	19	24
Alaska	43,800	132.3	(10,693)	33,107	20	2
Texas	29,719	90.0	3,315	33,034	21	31
Vermont	33,200	101.3	(415)	32,785	22	21
North Carolina	29,334	89.6	3,412	32,746	23	33
Georgia	29,539	90.2	3,199	32,738	24	32
Kansas	29,101	89.5	3,420	32,522	25	35
Iowa	29,196	89.9	3,268	32,464	26	34
Arizona	31,176	96.2	1,247	32,423	27	26
Wyoming	30,425	94.6	1,738	32,163	28	29
New Jersey	41,027	127.6	(8,865)	32,162	29	4
Tennessee	28,621	89.0	3,527	32,148	30	37
South Carolina	28,209	88.8	3,555	31,764	31	38
Missouri	28,923	91.5	2,681	31,604	32	36
West Virginia	27,366	87.0	4,088	31,454	33	40
Delaware	34,548	109.9	(3,098)	31,450	34	16
Massachusetts	37,256	119.9	(6,180)	31,076	35	11
Arkansas	27,168	87.6	3,855	31,023	36	42
New Hampshire	33,170	108.4	(2,576)	30,594	37	23
Alabama	26,954	88.3	3,568	30,522	38	43
Nebraska	27,231	90.2	2,944	30,175	39	41
D.C.	39,673	131.7	(9,549)	30,124	40	7
Montana	27,590	91.9	2,440	30,030	41	39
Oklahoma	26,514	88.3	3,501	30,015	42	45
Louisiana	26,411	88.2	3,528	29,939	43	46
Maine	30,097	100.6	(176)	29,921	44	30
Idaho	26,345	91.4	2,483	28,828	45	47
Utah	26,524	92.0	2,301	28,825	46	44
New Mexico	26,244	92.1	2,241	28,485	47	48
Mississippi	24,368	86.8	3,705	28,073	48	50
North Dakota	24,495	89.2	2,953	27,448	49	49
South Dakota	23,291	88.8	2,946	26,237	50	51
Hawaii	34,488	132.5	(8,459)	26,029	51	17
U.S. AVERAGE	**$34,213**	**100.0**	**0**	**$34,213**		

Source: AFT Research Department (see F. Howard Nelson, "An Interstate Cost-of-Living Index," Educational Evaluation and Policy Analysis, Spring 1991, Vol. 13, pp 103–111, for technical documentation) except Hawaii, Alaska, and Washington, D.C. (see data sources appendix to this report).

TABLE I-7

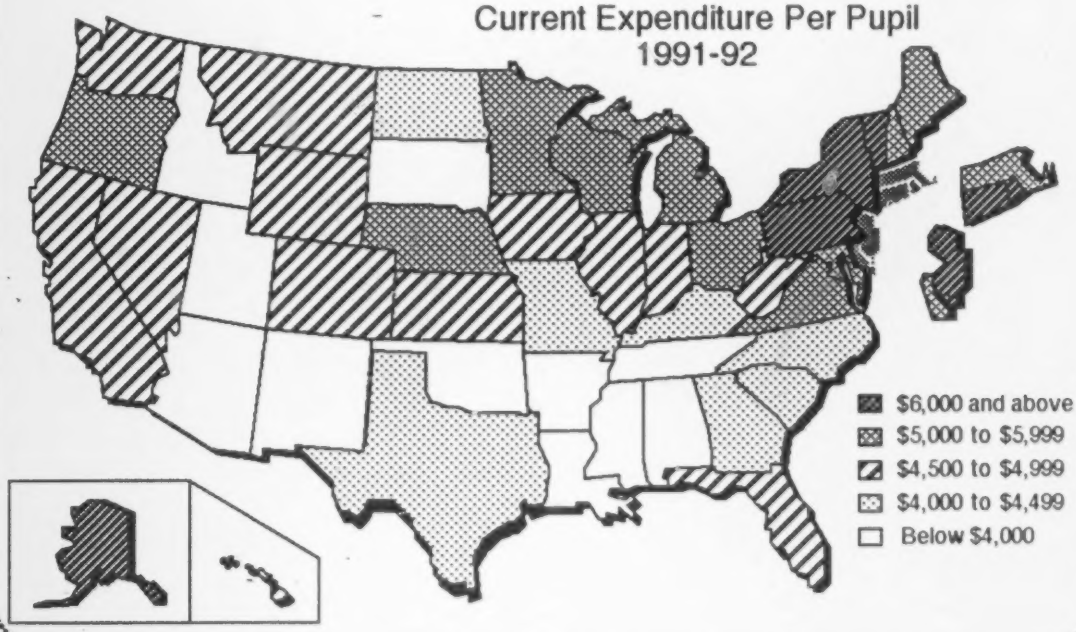
STATE RANKINGS BY 1991-92 AVERAGE TEACHER SALARY ADJUSTED FOR DIFFERENCES IN TEACHING EXPERIENCE AMONG STATES

	1990-91		Average		Experience				
	Starting Salary	Average Salary	Years of Experience*	Annual Salary Change	Exceeding U.S. Average	Salary Adjustment	Adjusted Average Salary	Original Rank	
Alaska	$30,429	$43,800	12.83	$1,043	-2.0	$2,035	$45,835	1	2
Connecticut	26,718	47,510	16.47	1,263	1.7	(2,132)	45,378	2	1
New York	27,166	43,335	15.73	1,028	0.9	(975)	42,360	3	3
New Jersey	26,162	41,027	15.73	945	0.9	(896)	40,131	5	4
California	24,700	40,425	15.85	992	1.1	(1,060)	39,365	4	6
Michigan	23,250	40,700	16.56	1,054	1.8	(1,879)	38,821	7	5
Maryland	24,069	39,073	15.66	958	0.9	(842)	38,231	6	9
Nevada	23,228	36,989	14.41	955	-0.4	350	37,339	8	12
Pennsylvania	23,750	38,715	16.74	894	2.0	(1,755)	36,960	12	10
Rhode Island	21,692	39,367	17.65	1,001	2.9	(2,877)	36,489	10	8
D.C.	23,325	39,673	18.81	869	4.0	(3,505)	36,168	9	7
Massachusetts	22,889	37,256	16.17	889	1.4	(1,238)	36,018	11	11
Illinois	22,899	36,528	16.26	838	1.5	(1,239)	35,289	14	13
Oregon	21,303	34,101	13.83	925	-0.9	876	34,977	15	19
Washington	21,533	34,880	15.10	884	0.3	(281)	34,599	17	15
Wisconsin	22,141	35,227	15.99	818	1.2	(993)	34,234	23	14
New Hampshire	22,500	33,170	13.47	792	-1.3	1,039	34,209	22	23
Vermont	20,758	33,200	13.78	903	-1.0	900	34,100	27	21
Delaware	21,532	34,548	15.57	836	0.8	(663)	33,885	13	16
Colorado	20,906	33,072	14.09	863	-0.7	593	33,665	18	24
Indiana	21,081	34,247	15.47	851	0.7	(590)	33,657	19	18
Hawaii	24,208	34,488	16.89	609	2.1	(1,284)	33,204	21	17
Ohio	18,705	33,198	14.98	967	0.2	(197)	33,001	25	22
Arizona	21,750	31,176	12.65	745	-2.1	1,589	32,765	20	26
Minnesota	22,039	33,700	16.39	711	1.6	(1,148)	32,552	24	20
Virginia	23,200	32,243	14.32	632	-0.5	292	32,535	16	25
Florida	21,398	31,070	13.67	708	-1.1	787	31,857	26	27
Texas	21,100	29,719	12.39	696	-2.4	1,664	31,383	30	31
Wyoming	19,925	30,425	13.65	770	-1.1	871	31,296	29	29
Georgia	21,144	29,539	12.53	670	-2.2	1,505	31,044	28	32
Kentucky	20,559	30,880	14.76	699	-0.0	15	30,895	32	28
Maine	19,288	30,097	14.22	760	-0.6	423	30,520	34	30
Kansas	19,438	29,101	14.09	686	-0.7	475	29,576	36	35
North Carolina	19,810	29,334	14.46	659	-0.3	212	29,546	31	33
Missouri	20,652	28,923	14.07	588	-0.7	415	29,338	37	36
South Carolina	19,706	28,209	13.42	634	-1.4	863	29,072	33	38
Tennessee	20,371	28,621	14.09	586	-0.7	405	29,026	35	37
Utah	17,804	26,524	11.63	750	-3.1	2,359	28,883	38	44
Arkansas	19,500	27,168	12.18	630	-2.6	1,635	28,803	48	42
Iowa	19,873	29,196	16.37	570	1.6	(905)	28,291	41	34
Montana	18,407	27,590	13.82	664	-1.0	636	28,226	40	39
Idaho	16,721	26,345	12.53	768	-2.3	1,730	28,075	39	47
West Virginia	19,278	27,366	13.60	595	-1.2	700	28,066	44	40
Oklahoma	18,660	26,514	12.41	633	-2.4	1,498	28,012	47	45
Nebraska	18,779	27,231	14.39	588	-0.4	230	27,461	43	41
Alabama	21,400	26,954	14.04	396	-0.7	291	27,245	42	43
Louisiana	17,686	26,411	14.12	618	-0.7	409	26,820	45	46
New Mexico	19,499	26,244	14.03	481	-0.7	359	26,603	46	48
North Dakota	16,897	24,495	13.28	572	-1.5	856	25,351	50	49
Mississippi	18,664	24,368	13.72	416	-1.1	439	24,807	49	50
South Dakota	17,496	23,291	12.69	457	-2.1	953	24,244	51	51
U.S. AVERAGE	**$22,171**	**$34,213**	**14.8**	**$815**	**0.0**	**$0**	**$34,213**		

* Sum of full-time public school (U.S. average is 13.5 years), and private school (U.S. average is 1.03 years) teaching experience, and one-half of part-time public experience (U.S. average is .73 years). Data from U.S. Department of Education's 1987-88 school and staffing survey.

Map 3

Current Expenditure Per Pupil
1991-92



Map 4

1991 AFT Interstate
Cost-Of-Living Index

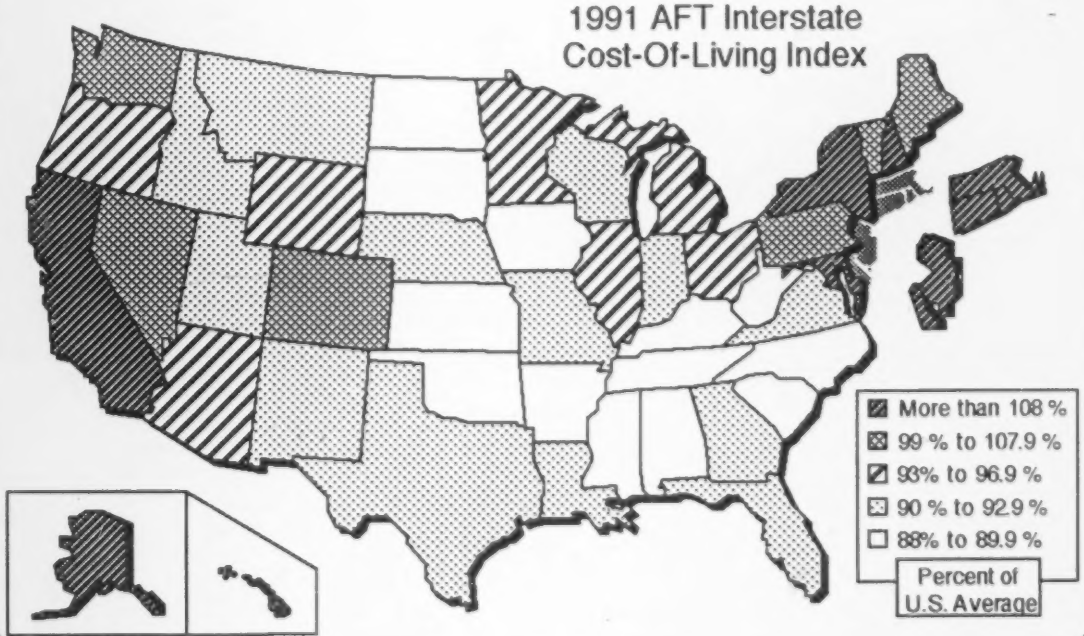


TABLE I–8

EXPENDITURES PER PUPIL (MEMBERSHIP) IN 1991–92*, AND THE AVERAGE TEACHER SALARY IN 1991–92

	State	Expenditures Per Pupil		Percent of U.S. Average	Average Salary 1991–92	Percent of U.S. Average	Salary Rank
1	New Jersey	$8,601	b	170%	$41,027	120%	4
2	D.C.	8,082	b	160%	39,673	116%	7
3	Alaska	8,076	c	160%	43,800	128%	2
4	Connecticut	7,900		156%	47,510	139%	1
5	New York	7,637	c	151%	43,335	127%	3
6	Pennsylvania	6,391		127%	38,715	113%	10
7	Vermont	6,300	b	125%	33,200	97%	21
8	Rhode Island	6,035		119%	39,367	115%	8
9	Maryland	5,895		117%	39,073	114%	9
10	Massachusetts	5,881		116%	37,256	109%	11
11	Delaware	5,823	b	115%	34,548	101%	16
12	Wisconsin	5,788		115%	35,227	103%	14
13	Michigan	5,653	c	112%	40,700	119%	5
14	New Hampshire	5,505	b	109%	33,170	97%	23
15	Maine	5,420	a	107%	30,097	88%	30
16	Oregon	5,381	a	107%	34,101	100%	19
17	Wyoming	5,381	b	107%	30,425	89%	29
18	Washington	5,270		104%	34,880	102%	15
19	Minnesota	5,246		104%	33,700	99%	20
20	Virginia	5,143	b	102%	32,243	94%	25
21	Nebraska	5,087	b	101%	27,231	80%	41
22	Ohio	5,043	b	100%	33,198	97%	22
23	West Virginia	4,979	a	99%	27,366	80%	40
24	Illinois	4,886	c	97%	36,528	107%	13
25	Montana	4,880	c	97%	27,590	81%	39
26	Florida	4,804	c	95%	31,070	91%	27
27	Hawaii	4,772	c	94%	34,488	101%	17
28	Nevada	4,703		93%	36,989	108%	12
29	Kansas	4,686	a	93%	29,101	85%	35
30	Colorado	4,649	b	92%	33,072	97%	24
31	California	4,612	c	91%	40,425	118%	6
32	Iowa	4,608	a	91%	29,196	85%	34
33	Indiana	4,554		90%	34,247	100%	18
34	North Carolina	4,497	b	89%	29,334	86%	33
35	Georgia	4,483	a	89%	29,539	86%	32
36	Missouri	4,307	a	85%	28,923	85%	36
37	Texas	4,258	a	84%	29,719	87%	31
38	South Carolina	4,233	a	84%	28,209	82%	38
39	North Dakota	4,174	c	83%	24,495	72%	49
40	Kentucky	4,002		79%	30,880	90%	28
41	Arizona	3,985	b	79%	31,176	91%	26
42	Louisiana	3,832	b	76%	26,411	77%	46
43	South Dakota	3,830	a	76%	23,291	68%	51
44	Arkansas	3,752		74%	27,168	79%	42
45	Oklahoma	3,750	c	74%	26,514	77%	45
46	New Mexico	3,732	b	74%	26,244	77%	48
47	Tennessee	3,549		70%	28,621	84%	37
48	Alabama	3,487		69%	26,954	79%	43
49	Idaho	3,301	a	65%	26,345	77%	47
50	Mississippi	3,158		63%	24,368	71%	50
51	Utah	2,827	a	56%	26,524	78%	44
	U.S. AVERAGE	**$5,051**		**100%**	**$34,213**	**100%**	

*Expenditure figures correspond to the federal definition of current expenditures per member. a=preliminary or estimate; b=AFT estimate (based on data supplied by states when available). c=based primarily on December 1991 estimates reported by NCES.

TABLE I–9

TRENDS IN EXPENDITURES PER PUPIL (MEMBERSHIP), 1989–90 TO 1991–92

State	Expenditures Per Pupil* 1989–90	Rank	Expenditures Per Pupil 1990–91	Rank	Expenditures Per Pupil 1991–92	Rank	Percent Change 1989–90 to 1990–91	Percent Change 1990–91 to 1991–92	Percent Change 1989–90 to 1991–92
New Jersey	$7,408	3	$8,038	1	$8,601	1	8.5%	7.0%	16.1%
D.C.	7,606	1	8,002	3	8,082	2	5.2%	1.0%	6.3%
Alaska	7,526	2	8,011	2	8,076	3	6.4%	0.8%	7.3%
Connecticut	7,241	4	7,511	5	7,900	4	3.7%	5.2%	9.1%
New York	7,051	5	7,511	4	7,637	5	6.5%	1.7%	8.3%
Pennsylvania	5,583	9	5,929	8	6,391	6	6.2%	7.8%	14.5%
Vermont	5,770	7	5,943	7	6,300	7	3.0%	6.0%	9.2%
Rhode Island	5,798	6	5,999	6	6,035	8	3.5%	0.6%	4.1%
Maryland	5,502	10	5,818	10	5,895	9	5.7%	1.3%	7.1%
Massachusetts	5,766	8	5,852	9	5,881	10	1.5%	0.5%	2.0%
Delaware	5,232	12	5,546	11	5,823	11	6.0%	5.0%	11.3%
Wisconsin	5,064	14	5,475	12	5,788	12	8.1%	5.7%	14.3%
Michigan	5,090	13	5,267	13	5,653	13	3.5%	7.3%	11.1%
New Hampshire	4,786	17	5,193	16	5,505	14	8.5%	6.0%	15.0%
Maine	4,903	15	5,211	15	5,420	15	6.3%	4.0%	10.5%
Oregon	4,883	16	5,053	17	5,381	16	3.5%	6.5%	10.2%
Wyoming	5,239	11	5,224	14	5,381	17	-0.3%	3.0%	2.7%
Washington	4,362	25	4,958	19	5,270	18	13.7%	6.3%	20.8%
Minnesota	4,719	18	4,940	20	5,246	19	4.7%	6.2%	11.2%
Virginia	4,630	19	4,993	18	5,143	20	7.8%	3.0%	11.1%
Nebraska	4,553	22	4,826	21	5,087	21	6.0%	5.4%	11.7%
Ohio	4,574	21	4,803	22	5,043	22	5.0%	5.0%	10.3%
West Virginia	4,018	33	4,675	25	4,979	23	16.3%	6.5%	23.9%
Illinois	4,503	23	4,621	27	4,886	24	2.6%	5.7%	8.5%
Montana	4,240	28	4,694	24	4,880	25	10.7%	4.0%	15.1%
Florida	4,597	20	4,772	23	4,804	26	3.8%	0.7%	4.5%
Hawaii	4,130	31	4,403	30	4,772	27	6.6%	8.4%	15.5%
Nevada	3,816	38	4,287	34	4,703	28	12.4%	9.7%	23.3%
Kansas	4,290	27	4,421	29	4,686	29	3.1%	6.0%	9.2%
Colorado	4,357	26	4,470	28	4,649	30	2.6%	4.0%	6.7%
California	4,502	24	4,627	26	4,612	31	2.8%	-0.3%	2.4%
Iowa	4,190	30	4,311	32	4,608	32	2.9%	6.9%	10.0%
Indiana	4,217	29	4,379	31	4,554	33	3.8%	4.0%	8.0%
North Carolina	3,968	34	4,293	33	4,497	34	8.2%	4.8%	13.3%
Georgia	3,918	35	4,159	37	4,483	35	6.1%	7.8%	14.4%
Missouri	4,071	32	4,164	36	4,307	36	2.3%	3.4%	5.8%
Texas	3,835	37	4,040	39	4,258	37	5.4%	5.4%	11.0%
South Carolina	3,785	39	4,170	35	4,233	38	10.2%	1.5%	11.8%
North Dakota	3,899	36	4,049	38	4,174	39	3.8%	3.1%	7.0%
Kentucky	3,321	45	3,804	41	4,002	40	14.6%	5.2%	20.5%
Arizona	3,721	40	3,907	40	3,985	41	5.0%	2.0%	7.1%
Louisiana	3,579	41	3,794	42	3,832	42	6.0%	1.0%	7.1%
South Dakota	3,512	42	3,683	43	3,830	43	4.9%	4.0%	9.1%
Arkansas	3,229	47	3,326	48	3,752	44	3.0%	12.8%	16.2%
Oklahoma	3,297	46	3,561	45	3,750	45	8.0%	5.3%	13.8%
New Mexico	3,449	43	3,659	44	3,732	46	6.1%	2.0%	8.2%
Tennessee	3,405	44	3,499	46	3,549	47	2.8%	1.4%	4.2%
Alabama	3,144	48	3,416	47	3,487	48	8.7%	2.1%	10.9%
Idaho	2,921	50	3,174	49	3,301	49	8.7%	4.0%	13.0%
Mississippi	2,936	49	3,115	50	3,158	50	6.1%	1.4%	7.6%
Utah	2,545	51	2,727	51	2,827	51	7.1%	3.7%	11.1%
U.S. AVERAGE	**$4,622**		**$4,861**		**$5,051**		**5.2%**	**3.9%**	**9.3%**

* Final tabulations of the U.S. Department of Education.

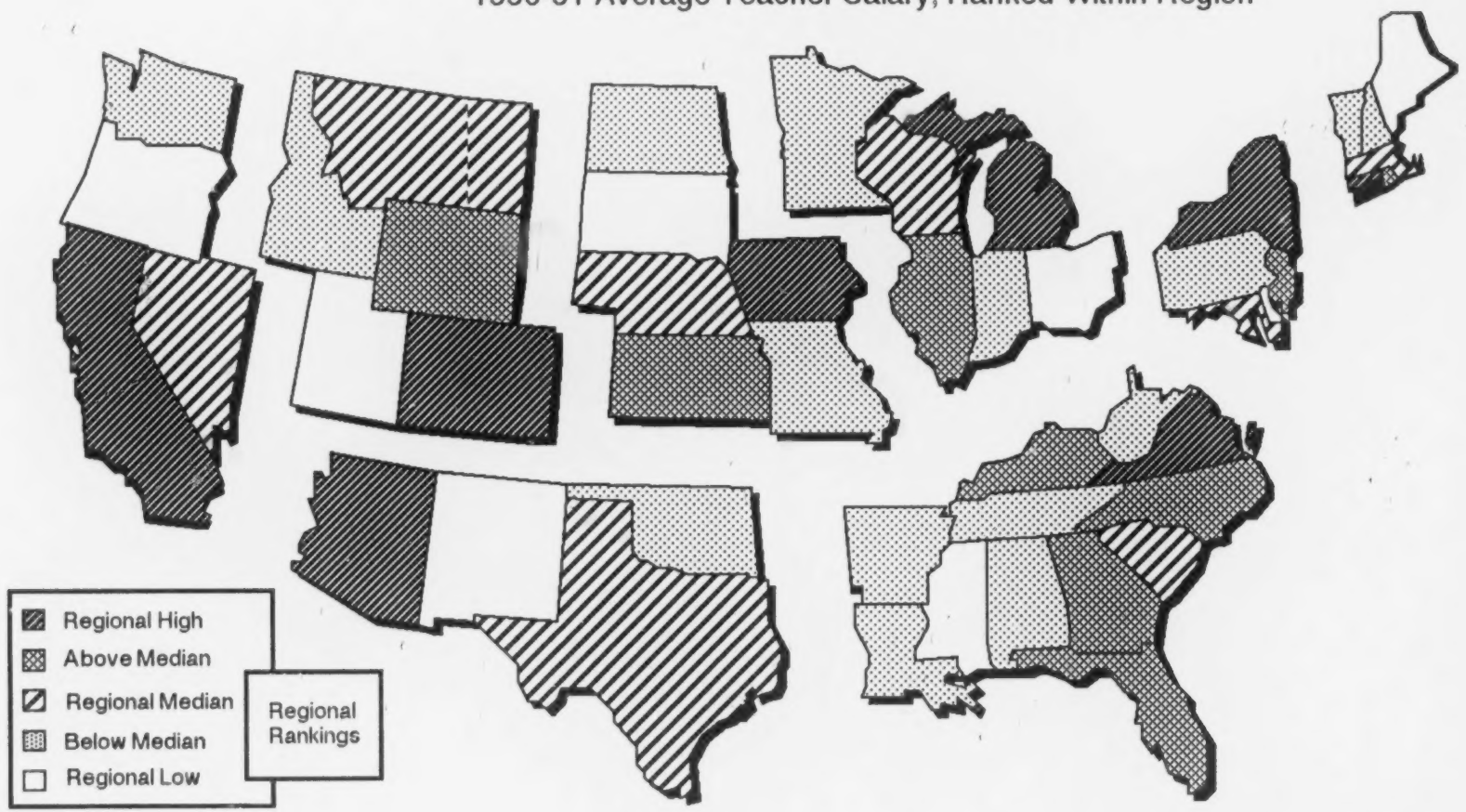
TABLE I–10

EXPENDITURES PER PUPIL AND THE AVERAGE TEACHER SALARY IN 1991–92

State	Expenditures Per Pupil	Average Salary
NEW ENGLAND		
Connecticut	$7,900	$47,510
Rhode Island	6,035	39,367
Massachusetts	5,881	37,256
Vermont	6,300	33,200
New Hampshire	5,505	33,170
Maine	5,420	30,097
MIDEAST		
New York	7,637	43,335
New Jersey	8,601	41,027
D.C.	8,082	39,673
Maryland	5,895	39,073
Pennsylvania	6,391	38,715
Delaware	5,823	34,548
GREAT LAKES		
Michigan	5,653	40,700
Illinois	4,886	36,528
Wisconsin	5,788	35,227
Indiana	4,554	34,247
Minnesota	5,246	33,700
Ohio	5,043	33,198
PLAINS		
Iowa	4,608	29,196
Kansas	4,686	29,101
Missouri	4,307	28,923
Nebraska	5,087	27,231
North Dakota	4,174	24,495
South Dakota	3,830	23,291
SOUTHWEST		
Arizona	3,985	31,176
Texas	4,258	29,719
Oklahoma	3,750	26,514
New Mexico	3,732	26,244
SOUTHEAST		
Virginia	5,143	32,243
Florida	4,804	31,070
Kentucky	4,002	30,880
Georgia	4,483	29,539
North Carolina	4,497	29,334
Tennessee	3,549	28,621
South Carolina	4,233	28,209
West Virginia	4,979	27,366
Arkansas	3,752	27,168
Alabama	3,487	26,954
Louisiana	3,832	26,411
Mississippi	3,158	24,368
ROCKY MOUNTAINS		
Colorado	4,649	33,072
Wyoming	5,381	30,425
Montana	4,880	27,590
Utah	2,827	26,524
Idaho	3,301	26,345
FAR WEST		
California	4,612	40,425
Nevada	4,703	36,989
Washington	5,270	34,880
Oregon	5,381	34,101
Alaska	8,076	43,800
Hawaii	4,772	34,488
U.S. AVERAGE	$5,051	$34,213

Map 5

1990-91 Average Teacher Salary, Ranked Within Region



II. Trends in Teacher Salaries Compared to Other Workers and Professions

The economic downturn of the early 1990's shows up in the teacher salary data. The 3.6 percent increase in average salaries in 1992 is the smallest gain in 27 years. In 1990, teacher salaries failed to keep pace with inflation for the first time since 1981, but the 5.4 percent teacher salary growth rate easily outpaced inflation in 1991. The inflation-adjusted salary of teachers rose just $220 in 1992, for a total of $1,700 in real salary growth since 1986, the year when teacher purchasing power was finally restored to 1972 levels.

Trends in Teacher Salaries Compared to Inflation. The purchasing power of teachers, measured in 1992 dollars according to the Consumer Price Index for All Urban Consumers, has risen nearly $8,000 since 1981. Teachers, however, gained just $220 in 1992. Over the past six years, teacher purchasing power grew by just $275 a year.

As shown in Table II-1 and Figure II-3, purchasing power for teachers has been restored to the peak purchasing power period of 1971-73 with almost $2,000 to spare. In 1956, the average teacher salary was $20,909 (in 1992 dollars)--about two-thirds of the current salary level and less than the average beginning teacher salary of $22,171 in 1992. During the period of rapid inflation in the mid-1970's and early 1980's, as shown in Figure II-1, the average teacher salary increase fell below the inflation rate at the onset of inflation but increased as inflation waned. The substantial real wage gains experienced by teachers in the early 1980's and mid-1980's may be a product of this adjustment lag. In Table II-1 and the following tables, the 1992 inflation rate is estimated at 3.2 percent. The gap between the increase in the average teacher salary (3.6%) and the estimated inflation rate (3.2%) is the smallest gap experienced during the previous five years except for 1990. During 1990, the economic response to the Iraqi invasion of Kuwait pushed the inflation rate to 6.1 percent, substantially above the 5.8 percent growth in teacher salaries. Once again, the sudden drop-off in inflation in 1991 resulted in substantial real growth in teacher salaries.

Trends in Teacher Salaries Compared to the Standard of Living. Merely adjusting for inflation does not adequately describe the financial well-being of teachers. Had teacher purchasing power remained the same since 1956 (at $20,909), teachers would be earning approximately $8,000 less than the average worker in 1992. While teacher salaries gained favorably on inflation during the early 1980's, the relative standard of living for teachers remained about the same in the 1980's, and well below levels in the 1960's and 1970's.

The ratio of the average teacher salary to the Gross Domestic Product (an economic measure similar to the Gross National Product or GNP) per capita began

the decade of the 1980's at 1.33--the lowest level in the three decades of data presented in Table II-1. By 1986, the ratio rose to 1.46 and stayed at about this same level for the subsequent five years. Teachers enjoyed their highest relative standard of living in the 1960's with the ratio of the average teacher salary to per capita GDP ranging from 1.66 to 1.80. During the 1970's, the decade began with a ratio of 1.76, which declined rapidly to 1.37 in 1978-79.

Trends in Teacher Salaries Compared to the Average Annual Earnings of All Workers. The ratio of teacher salaries to the mean average annual earnings of the full-time, nonagricultural worker was 1.24 in 1991 as shown in Table II-2. This ratio is at its highest level ever during the past 35 years. The ratio has been as low as 1.00 in 1957 and as high as 1.14 in 1971 but fell to 1.01 as recently as 1981. Figure II-3 illustrates these trends.

Trends in Teacher Salaries Compared to the Average Annual Salaries of All Government Workers. Trends in government worker salaries tend to match trends in teacher salaries. Teachers outpaced government workers over the 1960's, with the ratio of teacher salaries to government worker salaries rising to 1.11 in 1968. During the 1970's, however, government workers fared much better than teachers and the ratio fell to 1.00 by 1982. By 1991 teachers, however, vaulted to a 17 percent advantage over all government workers.

Trends in Teacher Salaries Adjusted for Work Experience. Though teacher salaries are at the highest levels ever, the average teacher in 1990-91 had an estimated 15.4 years of experience, more experience than at any time over the past three decades. Clearly, the rapid rise in teacher salaries over the early years of the 1980's was due primarily to layoffs of low-paid teachers and minimal hiring of beginning teachers. The teacher experience effect has abated over the past few years due to the near absence of layoffs and an increase in hiring. The demographic effect of experience on the average salary may increase once again, because layoffs are expected to rise in 1992-93. The educational attainment of teachers has increased at a rate commensurate with their experience. In 1975, less than 40 percent of teachers held a masters degree. In 1991, the comparable figure was about 53 percent.

With an estimated 15.4 years of experience, the average teacher earned $34,213 in 1991-92. During 1972, the average teacher earned $32,498 (in 1992 dollars), but had only 10.7 years of experience. If a year of experience yields about 2.3 percent more on the salary schedule, a teacher with 15.4 years of experience in 1972 would have earned approximately $36,319 (in 1992 dollars)--$2,000 more than teachers with 15.4 years of experience in 1991. Adjustments for other years are shown in Table II-3. Clearly, continued teacher dissatisfaction with their salaries seems legitimate from this perspective. The salary-experience data are taken from Table I-7, which shows that the typical state awards an average of $815 per year, or 2.3 percent of the average salary, for each year between the starting salary and the average salary reached in 14.8 years.

Average Teacher Salaries Compared to Selected White-Collar Occupations. The relationship of salaries in other white-collar occupations to each other changed little over the past 25 years, as shown in Table II-4 and illustrated in Figure II-5. For the sixth consecutive year, the average teacher salary grew faster or at the same rate as salaries in all other white-collar occupations (4th panel of Table II-4). The lawyers' average salary grew at a 6.2 percent rate in 1988. The job categories described in the tables and figures, such as Accountant "III" or Chemist "IV", contain the accountant or chemist who had earnings in the middle of the income distribution for all accountants or chemists. The figures in Table II-4 are the average of all people in that job category, such as Accountant III or Chemist IV. Lawyers earned nearly double the average teacher salary, chemists and engineers 50 to 60 percent more, and auditors and accountants about 10 to 20 percent more. Salaries in other white-collar occupations deteriorated relative to teacher salaries through the mid-1970's. Other white-collar occupations gained sharply on teachers from the mid-1970's until 1982, but in just the past ten years, all of this gain has been erased. In 1962, teachers earned less relative to all of the occupations listed in the tables compared to 1991. Some of the decline in earnings in other occupations relative to teachers can be traced to changes in the sample design in 1986, 1987 and 1989 that incorporated smaller firms into the sample.

Teacher Salaries Compared to Academic Salaries. Academic salaries have not maintained the same relationship with teacher salaries that private sector white-collar occupations have kept. The 34 percent salary advantage of assistant professors over teachers in 1963 declined continuously until 1988, when the advantage slipped to one percent (third panel of Table II-4). Salaries of assistant professors reported to the AUUP in the subsequent four years, however, rebounded sharply and increased by nearly 25 percent over the past four years. Assistant professors now average a 4 percent higher salary than elementary and secondary teachers. While full professors still have an 81 percent advantage, this figure fell continuously from a 120 percent advantage in 1967 to the current 81% advantage in 1984. During the 1960's, full professors enjoyed higher real earnings than did Attorney III's. Compared to the 3.6 percent increase for teachers in 1992, full professors gained only 2.5 percent, while assistant professors experienced income growth about equal to teachers.

Projected Wage Increases for 1992-93. An analysis of about 29 teacher salary adjustments or wage agreements covering 1,000 or more workers for 1992-93 indicates an upturn in teacher salaries as shown in Figure 7. The average increase reported in multi-year contracts prior to September 1991 for 11 agreements covering 1992-93 is 6.2 percent, while the average increase in 18 settlements reported between August 1991 and April 1992 for 1992-93 is 4.7 percent. Based on the same projections methodology applied to 83 wage agreements, a 4.1 percent wage increase was predicted for 1991-92. The actual national average increase was 3.6 percent. Figure 7 at the beginning of this report graphs these data against past projections using this data source and the national average salary based on data collected from state departments of education.

Salaries of Nonteaching Personnel. The average teacher salary increase of 178 percent since 1975-76 has been more than the increase in any category of nonteaching personnel shown in Table II-5, except central office secretaries (up 181 percent) and instructional aides (up 179 percent). Though no data on age exist for occupations other than teaching, the closing of the teacher-administrator salary gap probably reflects the rapid increase in teacher experience over the 1980's as shown in Table II-3. Beginning teacher salaries, for example, rose only 164 percent. Adjusted for inflation, school personnel paid hourly have not experienced wage growth since 1985-86. In 1985-86, teacher aides made $7.89 per hour; now they make $8.15. Over the same period, custodian and cafeteria worker wages declined 3 cents per hour. Bus drivers received 8 cents per hour less.

During the 1991-92 school year, superintendents' salaries grew 4.3 percent, below the teacher salary growth rate of 5.0 percent reported by Educational Research Service. Principal salaries grew a little faster, at a 4.5 percent rate. No other employee group experienced greater wage gains than teachers except bus drivers.

TABLE II–1

TRENDS IN TEACHER SALARIES COMPARED TO INFLATION AND GROSS DOMESTIC PRODUCT PER CAPITA

	Average Teacher Salary		Consumer Price Index		Average Teacher Salary (1992 Dollars)		Per Capita Gross Domestic Product		Teacher Salary To Per Capita GDP Ratio
	Salary	Change	CPI	Change	Salary	Change	GDP	Change	
1992	34,213	3.6%	142.3 *	3.2% *	34,213	0.4%	23,236 *	3.5%	1.47
1991	33,033	5.4%	137.9	3.1%	34,090	2.2%	22,450	1.8%	1.47
1990	31,347	5.8%	133.8	6.1%	33,341	-0.3%	22,056	6.9%	1.42
1989	29,636	5.6%	126.1	4.6%	33,446	0.9%	20,629	5.7%	1.44
1988	28,071	5.5%	120.5	4.4%	33,152	1.0%	19,523	7.0%	1.44
1987	26,615	5.4%	115.4	4.4%	32,822	0.9%	18,254	5.6%	1.46
1986	25,260	7.2%	110.5	1.1%	32,532	6.0%	17,283	4.4%	1.46
1985	23,572	7.3%	109.3	3.8%	30,692	3.3%	16,559	5.6%	1.42
1984	21,974	6.9%	105.3	4.1%	29,698	2.8%	15,686	10.0%	1.40
1983	20,547	8.5%	101.2	3.7%	28,894	4.6%	14,265	6.4%	1.44
1982	18,945	9.1%	97.6	3.8%	27,624	5.1%	13,412	2.6%	1.41
1981	17,364	7.9%	94.0	8.9%	26,289	-1.0%	13,067	10.8%	1.33
1980	16,100	7.5%	86.3	12.5%	26,550	-4.4%	11,794	7.8%	1.37
1979	14,970	5.4%	76.7	13.3%	27,776	-7.0%	10,943	9.9%	1.37
1978	14,207	6.4%	67.7	9.0%	29,865	-2.4%	9,961	11.6%	1.43
1977	13,352	6.0%	62.1	6.7%	30,598	-0.6%	8,927	10.4%	1.50
1976	12,591	7.7%	58.2	4.9%	30,788	2.7%	8,088	10.5%	1.56
1975	11,690	8.5%	55.5	6.9%	29,975	1.4%	7,321	7.6%	1.60
1974	10,778	5.9%	51.9	12.3%	29,554	-5.7%	6,805	7.3%	1.58
1973	10,176	4.9%	46.2	8.7%	31,346	-3.5%	6,343	10.7%	1.60
1972	9,705	4.7%	42.5	3.4%	32,498	1.3%	5,732	8.7%	1.69
1971	9,269	7.3%	41.1	3.3%	32,095	3.9%	5,272	7.2%	1.76
1970	8,635	8.6%	39.8	5.6%	30,876	2.9%	4,919	4.0%	1.76
1969	7,952	7.1%	37.7	6.2%	30,018	0.9%	4,728	6.9%	1.68
1968	7,423	8.7%	35.5	4.7%	29,757	3.8%	4,423	8.2%	1.68
1967	6,830	5.3%	33.9	3.0%	28,672	2.2%	4,088	4.6%	1.67
1966	6,485	4.7%	32.9	3.5%	28,052	1.2%	3,909	2.6%	1.66
1965	6,195	3.3%	31.8	1.9%	27,724	1.4%	3,810	13.1%	1.63
1964	5,995	4.6%	31.2	1.0%	27,345	3.6%	3,369	5.6%	1.78
1963	5,732	3.9%	30.9	1.6%	26,399	2.3%	3,191	4.0%	1.80
1962	5,515	4.5%	30.4	1.3%	25,818	3.2%	3,068	6.0%	1.80
1961	5,275	5.6%	30.0	0.7%	25,023	4.9%	2,895	1.9%	1.82
1960	4,995	4.1%	29.8	1.4%	23,854	2.7%	2,841		1.76
1959	4,797	4.9%	29.4	1.7%	23,220	3.2%			
1958	4,571	7.8%	28.9	1.8%	22,509	6.0%			
1957	4,239	4.5%	28.4	2.9%	21,242	1.6%			
1956	4,055		27.6		20,909				

* Estimated

Figure II-1

Annual Rate of Increase in Teacher Salaries
Compared to the Consumer Price Index

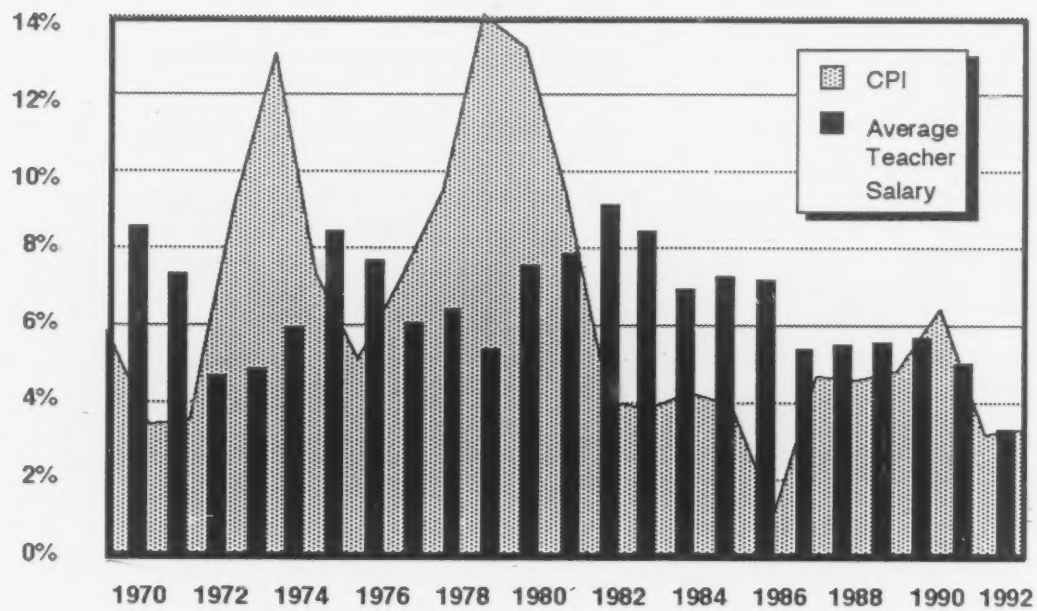


Figure II-2

Trends in Annual Earnings of Teachers, Government Workers, and All Workers

(Mean Annual Earnings in 1992 Dollars)

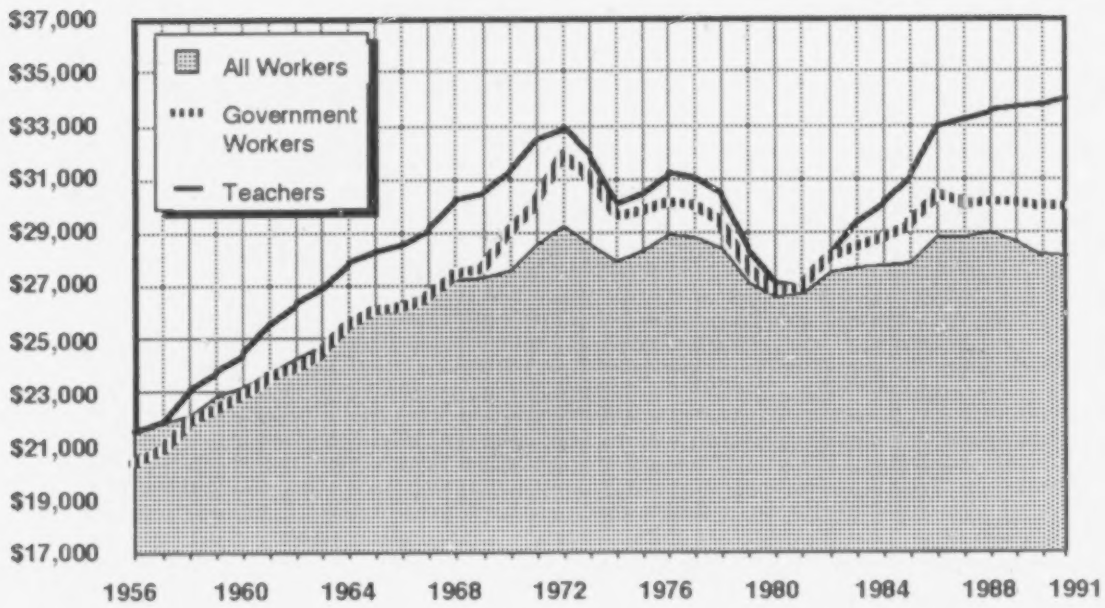


Figure II-3

Growth In Teacher Salaries Compared to
Growth In Gross Domestic Product Per Capita

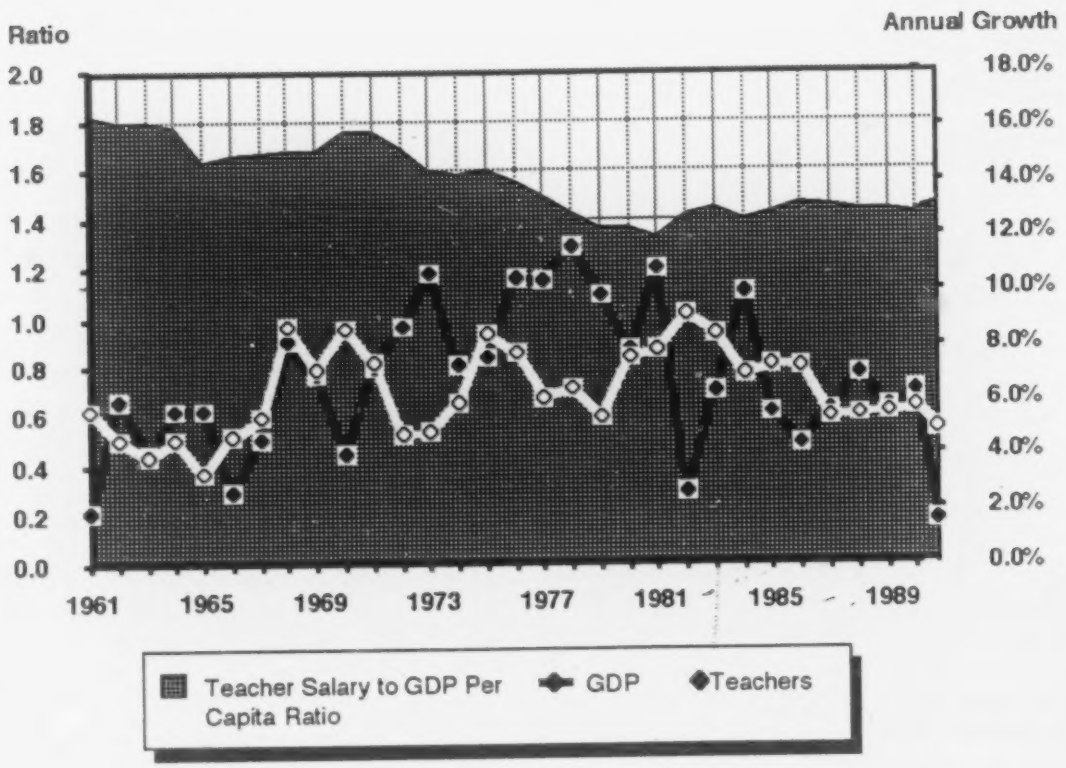


TABLE II–2

TRENDS IN TEACHER SALARIES COMPARED TO THE AVERAGE ANNUAL EARNINGS OF ALL WORKERS AND OF ALL GOVERNMENT WORKERS

		Mean Annual Earnings (1992 Dollars)						Ratio of Teacher Salary to Salary of:	
	CPI	Teachers		All Workers		Government Workers		All	Government
	Change	Salary	Change	Earnings	Change	Earnings	Change	Workers	Workers
1992	3.2%	34,213	0.4%						
1991	3.1%*	34,090	2.2%	27,601 *	0.2%	29,157 *	-0.7%	1.24	1.17
1990	6.1%	33,341	-0.3%	27,554	-1.5%	29,360	-0.8%	1.21	1.14
1989	4.6%	33,446	0.9%	27,969	-1.7%	29,611	-0.3%	1.20	1.13
1988	4.4%	33,152	1.0%	28,441	0.7%	29,705	0.4%	1.17	1.12
1987	4.4%	32,822	0.9%	28,257	0.0%	29,588	-1.1%	1.16	1.11
1986	1.1%	32,532	6.0%	28,251	3.5%	29,924	3.8%	1.15	1.09
1985	3.8%	30,692	3.3%	27,300	0.4%	28,831	1.8%	1.12	1.06
1984	4.1%	29,698	2.8%	27,194	0.2%	28,324	1.3%	1.09	1.05
1983	3.7%	28,894	4.6%	27,145	0.8%	27,954	1.5%	1.06	1.03
1982	3.8%	27,624	5.1%	26,927	3.4%	27,539	4.3%	1.03	1.00
1981	8.9%	26,289	-1.0%	26,046	0.2%	26,410	0.6%	1.01	1.00
1980	12.5%	26,550	-4.4%	26,001	-2.2%	26,254	-3.4%	1.02	1.01
1979	13.3%	27,776	-7.0%	26,575	-4.6%	27,183	-5.9%	1.05	1.02
1978	9.0%	29,865	-2.4%	27,868	-1.7%	28,888	-2.4%	1.07	1.03
1977	6.7%	30,598	-0.6%	28,336	-0.2%	29,586	-0.4%	1.08	1.03
1976	4.9%	30,788	2.7%	28,382	2.3%	29,720	1.3%	1.08	1.04
1975	6.9%	29,975	1.4%	27,754	1.4%	29,329	0.7%	1.08	1.02
1974	12.3%	29,554	-5.7%	27,359	-2.4%	29,137	-5.0%	1.08	1.01
1973	8.7%	31,346	-3.5%	28,018	-2.7%	30,664	-2.8%	1.12	1.02
1972	3.4%	32,498	1.3%	28,798	2.7%	31,534	6.2%	1.13	1.03
1971	3.3%	32,095	3.9%	28,043	3.8%	29,703	3.8%	1.14	1.08
1970	5.6%	30,876	2.9%	27,016	1.0%	28,613	5.6%	1.14	1.08
1969	6.2%	30,018	0.9%	26,752	0.4%	27,107	0.8%	1.12	1.11
1968	4.7%	29,757	3.8%	26,656	2.0%	26,897	3.1%	1.12	1.11
1967	3.0%	28,672	2.2%	26,124	1.3%	26,091	1.7%	1.10	1.10
1966	3.5%	28,052	1.2%	25,782	1.0%	25,656	0.4%	1.09	1.09
1965	1.9%	27,724	1.4%	25,525	1.8%	25,556	2.2%	1.09	1.08
1964	1.0%	27,345	3.6%	25,072	3.9%	25,004	4.4%	1.09	1.09
1963	1.6%	26,399	2.3%	24,120	1.8%	23,945	2.6%	1.09	1.10
1962	1.3%	25,818	3.2%	23,684	2.3%	23,347	1.4%	1.09	1.11
1961	0.7%	25,023	4.9%	23,142	2.3%	23,024	3.2%	1.08	1.09
1960	1.4%	23,854	2.7%	22,625	1.9%	22,305	2.5%	1.05	1.07
1959	1.7%	23,220	3.2%	22,212	3.2%	21,753	2.2%	1.05	1.07
1958	1.8%	22,509	6.0%	21,520	1.6%	21,288	5.1%	1.05	1.06
1957	2.9%	21,242	1.6%	21,173	1.4%	20,247	2.7%	1.00	1.05
1956		20,909		20,885		19,721		1.00	1.06

* Estimated

TABLE II-3

TRENDS IN TEACHER SALARIES RELATED TO TEACHER EXPERIENCE

	Public K-12 Teachers		Average	Difference From 1991	Salary Effect* (1991 Dollars)		Average Salary (1991	Adjusted Average
	(Thous.)	Change	Experience	Levels	Dollars	Percent	Dollars)	Salary
1992	2,433	-1.3%	15.4	0.0	0	0.0%	34,213	34,213
1991	2,465	3.1%	15.4	0.0	0	0.0%	34,090	34,090
1990	2,391	1.5%	15.4	0.0	0	0.0%	33,341	33,341
1989	2,356	1.4%	15.3	-0.1	81	0.2%	33,446	33,528
1988	2,323	1.9%	15.2	-0.2	163	0.5%	33,152	33,315
1987	2,279	1.6%	15.1	-0.3	244	0.7%	32,822	33,066
1986	2,244	1.7%	15.0	-0.4	325	1.0%	32,532	32,858
1985	2,207	1.8%	14.9	-0.5	407	1.3%	30,692	31,098
1984	2,168	2.2%	14.8	-0.6	488	1.6%	29,698	30,186
1983	2,121	-0.2%	14.6	-0.8	650	2.3%	28,894	29,545
1982	2,125	-2.7%	14.0	-1.4	1,138	4.1%	27,624	28,762
1981	2,184	0.0%	13.2	-2.2	1,789	6.8%	26,289	28,077
1980	2,183	-1.0%	12.2	-3.2	2,602	9.8%	26,550	29,151
1979	2,206	-0.1%	11.5	-3.9	3,171	11.4%	27,776	30,947
1978	2,209	1.1%	11.0	-4.4	3,577	12.0%	29,865	33,442
1977	2,186	-0.5%	10.5	-4.9	3,984	13.0%	30,598	34,582
1976	2,196	1.9%	10.0	-5.4	4,390	14.3%	30,788	35,178
1975	2,155	1.0%	10.1	-5.3	4,309	14.4%	29,975	34,284
1974	2,133	1.4%	10.3	-5.1	4,146	14.0%	29,554	33,700
1973	2,103	1.9%	10.5	-4.9	3,984	12.7%	31,346	35,329
1972	2,063	0.4%	10.7	-4.7	3,821	11.8%	32,498	36,319
1971	2,055	2.1%	11.0	-4.4	3,577	11.1%	32,095	35,672
1970	2,013	4.0%	11.2	-4.2	3,415	11.1%	30,876	34,291
1969	1,935	4.3%	11.4	-4.0	3,252	10.8%	30,018	33,270
1968	1,855	3.7%	11.6	-3.8	3,089	10.4%	29,757	32,847
1967	1,789	4.6%	11.8	-3.6	2,927	10.2%	28,672	31,599
1966	1,710	3.8%	12.0	-3.4	2,764	9.9%	28,052	30,816
1965	1,648	4.4%	12.2	-3.2	2,602	9.4%	27,724	30,326
1964	1,578	4.6%	12.4	-3.0	2,439	8.9%	27,345	29,784
1963	1,508	3.2%	12.6	-2.8	2,276	8.6%	26,399	28,676
1962	1,461	3.8%	12.8	-2.6	2,114	8.2%	25,818	27,931
1961	1,408		13.0	-2.4	1,951	7.8%	25,023	26,975

* Based on data in Table I-7, one year of experience is associated with $815 (1992 dollars), or 2.3% of the average 1992 salary.

Source: Experience data for 1961, 1966, 1971, 1976, 1981 and 1986 from National Education Association, Status of the American Public School Teacher, 1990-91, copyright 1992 by the NEA (All Rights Reserved). Experience data for intervening years between 1961 and 1986 are interpolations. Data for 1987 to 1991 is estimated. K-12 teacher count from U.S. Department of Education, Digest of Educational Statistics, 1990.

Figure II-4

The Average Teacher Salary Compared to the Average Experience Level of Teachers

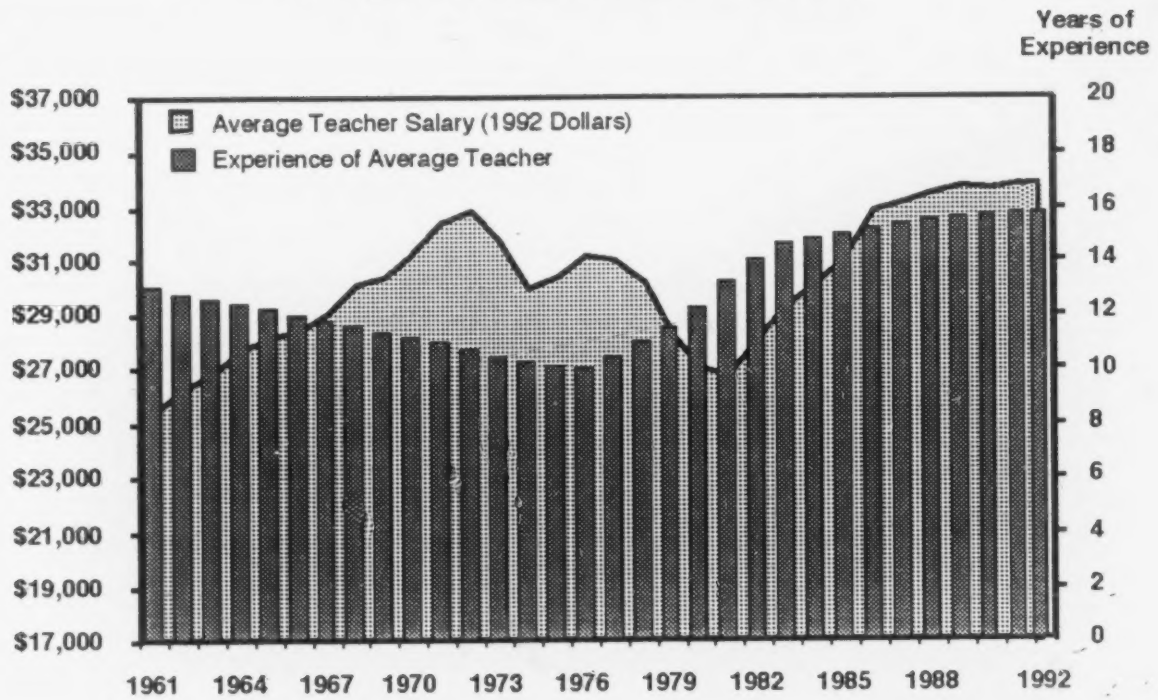


Figure II-5

Trends in Annual Earnings of Teachers, Controlling For Work Experience

(Mean Annual Earnings in 1992 Dollars)

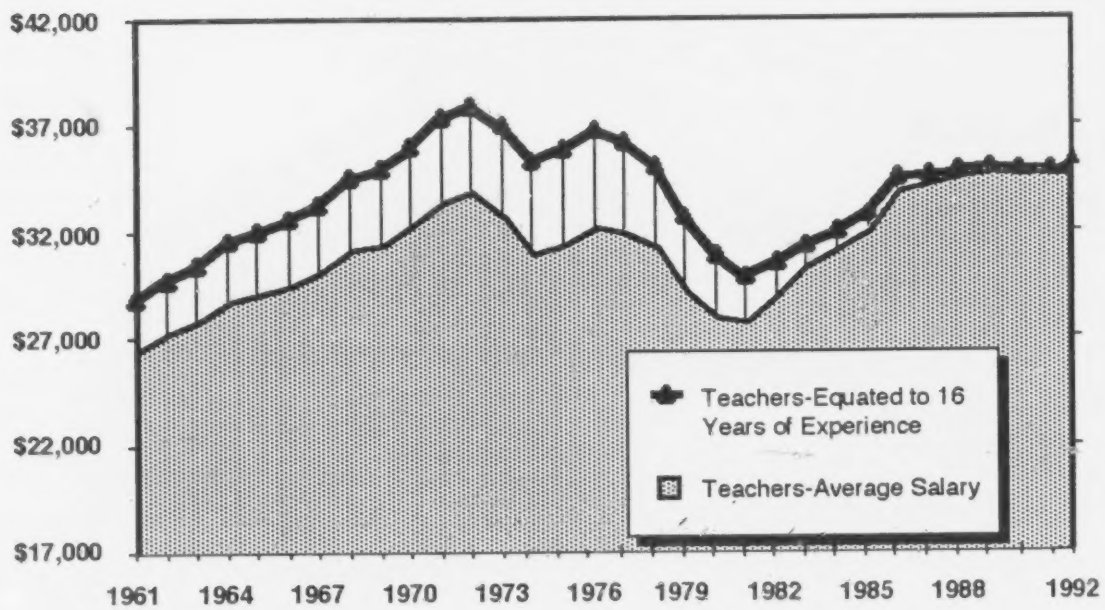


TABLE II–4

TRENDS IN TEACHER SALARIES COMPARED TO THE AVERAGE ANNUAL SALARIES OF SELECTED WHITE-COLLAR OCCUPATIONS

	Mean Teacher Salary	Account-ant III	Auditor III	Attorney III	Chemist IV	Engineer IV	Full Prof. Public Doctoral	Assistant Prof. Public Com-prehensive
1992	34,213						61,950	35,730
1991	33,033	36,919	39,286	61,568	50,962	51,315	60,450	34,460
1990	31,347	35,489	37,589	59,087	49,065	49,365	57,520	32,730
1989	29,636	34,134	36,007	57,172	47,081	47,291	54,240	30,900
1988 *	28,071	33,028	34,765	55,407	45,760	45,680	51,080	28,380
1987 *	26,615	32,074	33,302	52,158	43,480	44,360	48,740	27,520
1986 *	25,260	31,143	32,121	50,119	41,548	42,667	45,600	26,000
1985	23,572	30,037	31,246	47,742	39,418	40,991	42,600	24,400
1984	21,974	28,721	30,209	44,743	37,643	39,005	39,800	23,000
1983	20,547	27,346	28,245	42,271	35,439	36,726	38,200	22,000
1982	18,945	25,673	26,502	39,649	34,047	34,443	35,700	20,800
1981	17,364	23,545	24,401	36,373	30,801	31,352	32,900	19,300
1980	16,100	21,299	22,026	33,034	27,681	28,486	30,100	17,800
1979	14,970	19,468	20,303	29,644	25,459	25,989	28,200	16,600
1978	14,207	18,115	18,756	27,738	23,532	23,972	26,400	15,900
1977	13,352	16,545	17,108	25,460	21,674	22,072	25,200	15,700
1976	12,591	15,428	16,059	24,205	20,429	20,749	24,200	14,600
1975	11,690	14,458	15,334	22,558	19,204	19,443	22,700	13,900
1974	10,778	13,285	14,341	21,082	17,283	17,929	21,600	13,100
1973	10,176	12,472	13,568	19,565	16,140	17,030	20,500	12,500
1972	9,705	11,879	12,881	18,392	15,670	16,159	19,800	11,800
1971	9,269	11,383	12,227	17,509	15,036	15,535	19,200	11,400
1970	8,635	10,686	11,475	16,884	14,218	14,695	18,100	10,800
1969	7,952	10,029	10,726	15,879	13,359	13,893	17,100	10,100
1968	7,423	9,367	9,977	15,283	12,751	13,095	16,100	9,500
1967	6,830	8,879	9,449	14,419	12,044	12,424	15,000	8,600
1966	6,485	8,328	8,904	14,052	11,448	11,784	14,100	8,300
1965	6,195	8,124	8,748	13,644	10,980	11,376	13,200	7,900
1964	5,995	7,908	8,520	12,816	10,632	11,016	12,500	7,700
1963	5,732	7,668	8,244	12,300	10,248	10,728	11,800	7,500
1962	5,515	7,416	7,932	11,844	9,936	10,248	na	na
				(1992 DOLLARS)				
1992	34,213						$61,950	35,730
1991	34,090	38,100	40,543	63,538	52,593	52,957	62,384	35,563
1990	33,341	37,747	39,981	62,846	52,187	52,506	61,180	34,812
1989	33,446	38,523	40,636	64,523	53,134	53,371	61,214	34,873
1988 *	33,152	39,007	41,058	65,437	54,043	53,949	60,326	33,517
1987 *	32,822	39,554	41,068	64,322	53,620	54,705	60,107	33,938
1986 *	32,532	40,109	41,369	64,548	53,510	54,951	58,728	33,485
1985	30,692	39,109	40,683	62,162	51,324	53,372	55,467	31,770
1984	29,698	38,816	40,827	60,470	50,874	52,715	53,790	31,084
1983	28,894	38,455	39,720	59,444	49,836	51,646	53,719	30,938
1982	27,624	37,434	38,643	57,813	49,645	50,222	52,055	30,329
1981	26,289	35,646	36,942	55,067	46,632	47,466	49,809	29,220
1980	26,550	35,123	36,322	54,475	45,647	46,975	49,636	29,353
1979	27,776	36,122	37,671	55,003	47,238	48,221	52,324	30,800
1978	29,865	38,080	39,427	58,308	49,467	50,392	55,496	33,424
1977	30,598	37,916	39,206	58,346	49,670	50,582	57,750	35,979
1976	30,788	37,725	39,268	59,187	49,954	50,736	59,175	35,700
1975	29,975	37,073	39,319	57,843	49,243	49,856	58,207	35,642
1974	29,554	36,428	39,324	57,808	47,391	49,162	59,228	35,921
1973	31,346	38,418	41,794	60,267	49,717	52,459	63,147	38,505
1972	32,498	39,777	43,132	61,586	52,472	54,109	66,301	39,513
1971	32,095	39,415	42,337	60,627	52,064	53,791	66,482	39,474
1970	30,876	38,210	41,031	60,372	50,839	52,545	64,720	38,618
1969	30,018	37,858	40,489	59,941	50,429	52,444	64,550	38,126
1968	29,757	37,551	39,996	61,267	51,116	52,495	64,542	38,084
1967	28,672	37,274	39,667	60,531	50,561	52,156	62,970	36,103
1966	28,052	36,024	38,515	60,784	49,520	50,973	60,991	35,903
1965	27,724	36,357	39,149	61,060	49,138	50,910	59,073	35,354
1964	27,345	36,071	38,862	58,458	48,496	50,247	57,016	35,122
1963	26,399	35,316	37,969	56,649	47,198	49,409	54,346	34,542
1962	25,818	34,717	37,132	55,446	46,514	47,974	0	0

* See note on next page.

(TABLE II–4 Continued)

RATIO OF SALARIES IN OTHER OCCUPATIONS TO TEACHER SALARIES

	Teachers	Account-ant III	Auditor III	Attorney III	Chemist IV	Engineer IV	Full Prof. Public Doctoral	Assistant Prof. Public Com-prehensive
1992	1.00						1.81	1.04
1991	1.00	1.12	1.19	1.86	1.54	1.55	1.83	1.04
1990	1.00	1.13	1.20	1.88	1.57	1.57	1.83	1.04
1989	1.00	1.15	1.21	1.93	1.59	1.60	1.83	1.04
1988 *	1.00	1.18	1.24	1.97	1.63	1.63	1.82	1.01
1987 *	1.00	1.21	1.25	1.96	1.63	1.67	1.83	1.03
1986 *	1.00	1.23	1.27	1.98	1.64	1.69	1.81	1.03
1985	1.00	1.27	1.33	2.03	1.67	1.74	1.81	1.04
1984	1.00	1.31	1.37	2.04	1.71	1.78	1.81	1.05
1983	1.00	1.33	1.37	2.06	1.72	1.79	1.86	1.07
1982	1.00	1.36	1.40	2.09	1.80	1.82	1.88	1.10
1981	1.00	1.36	1.41	2.09	1.77	1.81	1.89	1.11
1980	1.00	1.32	1.37	2.05	1.72	1.77	1.87	1.11
1979	1.00	1.30	1.36	1.98	1.70	1.74	1.88	1.11
1978	1.00	1.28	1.32	1.95	1.66	1.69	1.86	1.12
1977	1.00	1.24	1.28	1.91	1.62	1.65	1.89	1.18
1976	1.00	1.23	1.28	1.92	1.62	1.65	1.92	1.16
1975	1.00	1.24	1.31	1.93	1.64	1.66	1.94	1.19
1974	1.00	1.23	1.33	1.96	1.60	1.66	2.00	1.22
1973	1.00	1.23	1.33	1.92	1.59	1.67	2.01	1.23
1972	1.00	1.22	1.33	1.90	1.61	1.67	2.04	1.22
1971	1.00	1.23	1.32	1.89	1.62	1.68	2.07	1.23
1970	1.00	1.24	1.33	1.96	1.65	1.70	2.10	1.25
1969	1.00	1.26	1.35	2.00	1.68	1.75	2.15	1.27
1968	1.00	1.26	1.34	2.06	1.72	1.76	2.17	1.28
1967	1.00	1.30	1.38	2.11	1.76	1.82	2.20	1.26
1966	1.00	1.28	1.37	2.17	1.77	1.82	2.17	1.28
1965	1.00	1.31	1.41	2.20	1.77	1.84	2.13	1.28
1964	1.00	1.32	1.42	2.14	1.77	1.84	2.09	1.28
1963	1.00	1.34	1.44	2.15	1.79	1.87	2.06	1.31
1962	1.00	1.34	1.44	2.15	1.80	1.86	na	na
ANNUAL PERCENT INCREASE								
1992	3.6%						2.5%	3.7%
1991	5.4%	4.0%	4.5%	4.2%	3.9%	4.0%	5.1%	5.3%
1990	5.8%	4.0%	4.4%	3.3%	4.2%	4.4%	6.0%	5.9%
1989	5.6%	3.3%	3.6%	3.2%	2.9%	3.5%	6.2%	8.9%
1988 *	5.5%	3.0%	4.4%	6.2%	5.2%	3.0%	4.8%	3.1%
1987 *	5.4%	3.0%	3.7%	4.1%	4.7%	4.0%	6.9%	5.8%
1986 *	7.2%	3.7%	2.8%	5.0%	5.4%	4.1%	7.0%	6.6%
1985	7.3%	4.6%	3.4%	6.7%	4.7%	5.1%	7.0%	6.1%
1984	6.9%	5.0%	7.0%	5.8%	6.2%	6.2%	4.2%	4.5%
1983	8.5%	6.5%	6.6%	6.6%	4.1%	6.6%	7.0%	5.8%
1982	9.1%	9.0%	8.6%	9.0%	10.5%	9.9%	8.5%	7.8%
1981	7.9%	10.5%	10.8%	10.1%	11.3%	10.1%	9.3%	8.4%
1980	7.5%	9.4%	8.5%	11.4%	8.7%	9.6%	6.7%	7.2%
1979	5.4%	7.5%	8.2%	6.9%	8.2%	8.4%	6.8%	4.4%
1978	6.4%	9.5%	9.6%	8.9%	8.6%	8.6%	4.8%	1.3%
1977	6.0%	7.2%	6.5%	5.2%	6.1%	6.4%	4.1%	7.5%
1976	7.7%	6.7%	4.7%	7.3%	6.4%	6.7%	6.6%	5.0%
1975	8.5%	8.8%	6.9%	7.0%	11.1%	8.4%	5.1%	6.1%
1974	5.9%	6.5%	5.7%	7.8%	7.1%	5.3%	5.4%	4.8%
1973	4.9%	5.0%	5.3%	6.4%	3.0%	5.4%	3.5%	5.9%
1972	4.7%	4.4%	5.3%	5.0%	4.2%	4.0%	3.1%	3.5%
1971	7.3%	6.5%	6.6%	3.7%	5.8%	5.7%	6.1%	5.6%
1970	8.6%	6.6%	7.0%	6.3%	6.4%	5.8%	5.8%	6.9%
1969	7.1%	7.1%	7.5%	3.9%	4.8%	6.1%	6.2%	6.3%
1968	8.7%	5.5%	5.6%	6.0%	5.9%	5.4%	7.3%	10.5%
1967	5.3%	6.6%	6.1%	2.6%	5.2%	5.4%	6.4%	3.6%
1966	4.7%	2.5%	1.8%	3.0%	4.3%	3.6%	6.8%	5.1%
1965	3.3%	2.7%	2.7%	6.5%	3.3%	3.3%	5.6%	2.6%
1964	4.6%	3.1%	3.3%	4.2%	3.7%	2.7%	5.9%	2.7%
1963	3.9%	3.4%	3.9%	3.9%	3.1%	4.7%	na	na
1962	4.5%	3.0%	2.6%	2.1%	0.8%	4.5%	na	na

* The Professional, Technical, Administrative and Clerical survey is not exactly comparable in 1986,1987 and 1988. Prior to 1986 the survey included firms with at least 100 employees. In 1986 the minimum fell to 50, in 1987 the minimum was 20, and in 1988 and subsequent years, the minimum sized established was restored to 50 employees. Small firms tend to pay less.

Figure II-6

Trends in the Average Salary in Teaching
and in Selected White-Collar Occupations
(1992 Dollars)

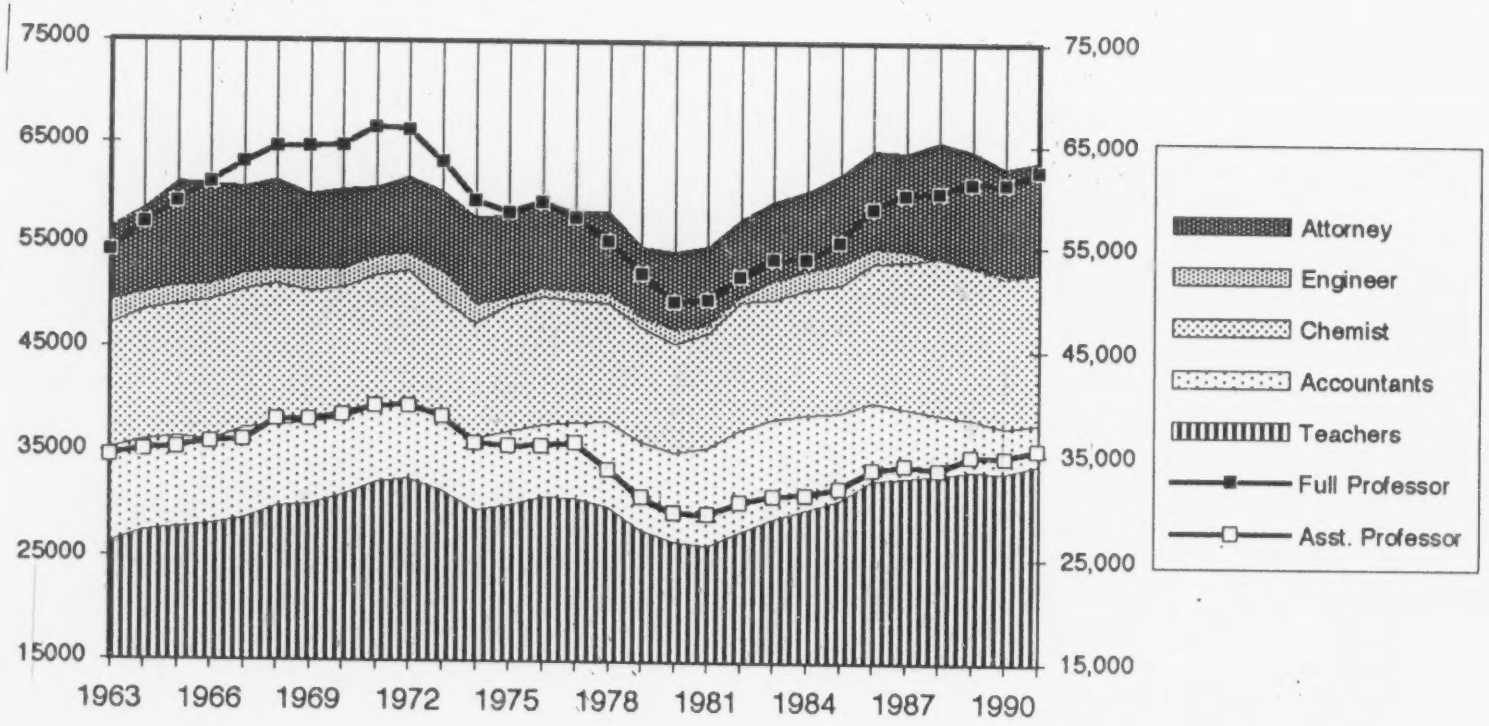


Table II–5

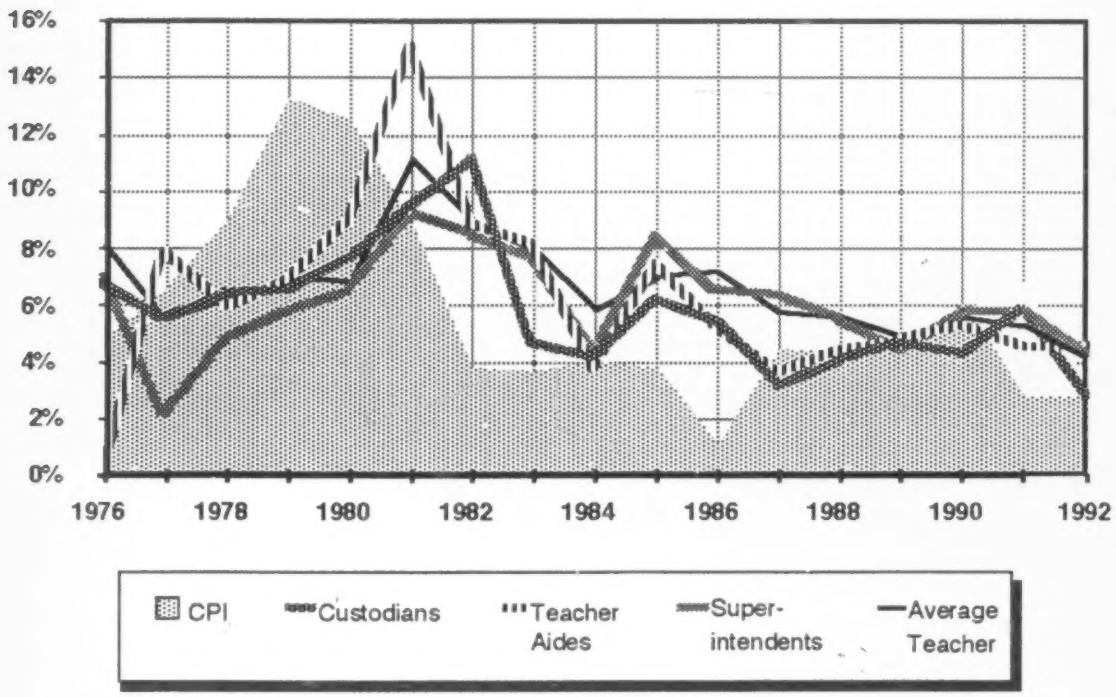
SALARIES OR EARNINGS OF NONTEACHING SCHOOL PERSONNEL, 1975–76 TO 1991–92

	1975–76	1979–80	1981–82	1983–84	1985–86	1987–88	1989–90	1990–91	1991–92	1975–76 To 1991–92
Teachers–Average	$12,437	$15,913	$19,275	$22,039	$25,276	$28,230	$31,276	$32,915	$34,565	$22,128
Teachers–Beginning	8,611	10,657	12,595	14,278	16,692	18,657	20,625	21,743	22,710	14,099
Superintendents	32,527	39,344	46,664	52,483	60,707	68,147	75,425	79,874	83,342	50,815
H.S. Principals	23,306	29,207	34,776	39,334	43,793	50,512	55,722	59,106	61,768	38.462
Secretaries										
Central Office	7,929	10,331	12,718	14,366	16,383	18,220	20,038	21,303	22,309	14,380
School Building	6,521	8,348	10,301	11,613	13,233	14,749	16,184	16,953	17,784	11,263
Hourly Workers										
Instructional Aides	$2.92	$3.89	$4.88	$5.48	$6.20	$6.72	$7.43	$7.77	$8.15	$5.23
Custodians	3.78	4.88	5.95	6.49	7.28	7.82	8.54	9.05	9.35	5.57
Cafeteria Workers	2.83	3.78	4.57	5.09	5.76	6.23	6.77	7.19	7.39	4.56
Bus Drivers	4.04	5.21	6.26	6.89	7.72	8.31	9.21	9.52	10.04	6.00
ANNUAL PERCENT INCREASE										
Teachers–Average	8.1%	6.8%	9.0%	5.9%	7.2%	5.6%	5.6%	5.2%	5.0%	177.9%
Teachers–Beginning	6.9%	5.9%	7.9%	5.5%	7.8%	5.6%	5.4%	5.4%	4.4%	163.7%
Superintendents	7.0%	6.6%	8.5%	4.4%	6.6%	5.5%	5.9%	5.3%	4.3%	156.2%
H.S. Principals	1.8%	6.5%	7.9%	4.6%	4.0%	5.5%	5.2%	6.1%	4.5%	165.0%
Secretaries										
Central Office	8.3%	8.1%	9.9%	5.3%	6.8%	6.0%	5.2%	6.3%	4.7%	181.4%
School Building	7.9%	7.4%	10.1%	5.5%	5.8%	5.8%	5.3%	4.8%	4.9%	172.7%
Hourly Workers										
Instructional Aides	0.3%	9.0%	8.9%	3.8%	5.3%	4.5%	5.4%	4.6%	4.9%	179.1%
Custodians	6.8%	7.7%	11.2%	4.2%	5.5%	4.1%	4.3%	6.0%	3.3%	147.4%
Cafeteria Workers	8.4%	8.6%	9.6%	4.5%	6.3%	5.2%	3.2%	6.2%	2.8%	161.1%
Bus Drivers	7.7%	5.7%	8.9%	5.0%	6.2%	3.1%	4.9%	3.4%	5.5%	148.5%
1992 DOLLARS										
Teachers–Average	$30,409	$26,239	$28,103	$29,783	$32,550	$33,337	$33,263	$33,965	$34,565	$4,156
Teachers–Beginning	21,054	17,572	18,363	19,295	21,496	22,032	21,935	22,437	22,710	1,656
Superintendents	79,529	64,874	68,036	70,924	78,177	80,476	80,217	82,423	83,342	3,813
H.S. Principals	56,984	48,159	50,703	53,155	56,396	59,650	59,262	60,992	61,768	4,784
Secretaries										
Central Office	19,387	17,035	18,543	19,414	21,098	21,516	21,311	21,983	22,309	2,922
School Building	15,944	13,765	15,019	15,694	17,041	17,417	17,212	17,494	17,784	1,840
Hourly Workers										
Instructional Aides	$7.14	$6.41	$7.12	$7.41	$7.98	$7.94	$7.90	$8.02	$8.15	$1.01
Custodians	9.24	8.05	8.68	8.77	9.38	9.23	9.08	9.34	9.35	0.11
Cafeteria Workers	6.92	6.23	6.66	6.88	7.42	7.36	7.20	7.42	7.39	0.47
Bus Drivers	9.88	8.59	9.13	9.31	9.94	9.81	9.80	9.82	10.04	0.16

Data Source: Educational Research Service

Figure II-7

Annual Rate of Increase in Teacher Salaries
and Earnings for Selected Nonteaching Positions



III. Beginning Teacher Salaries, the Hiring of Beginning and Reentering Teachers and Teacher Retirement

Beginning teacher salaries received great attention during the 1980's. The average beginning teacher salary reported in this survey is $22,171 for 1991-92, up just 3.2 percent from the previous year. The Educational Research Service, in its annual survey of school districts across the nation, reports a $22,710 figure for the average of the "lowest paid teacher," up 4.4 percent from the previous year. A wage survey by the Department of Defense of the 170 school districts serving cities with populations of more than 100,000 yielded an average beginning teacher salary of $23,130, up 3.0 percent from the previous year.

Beginning Teacher Salary by State. Thirty-two states have now passed the $20,000 barrier for average beginning salaries. Alaska, New York, Connecticut, and New Jersey have actual starting salaries in excess of $26,000 while only Utah, Louisiana, North Dakota, South Dakota, and Idaho report average starting salaries below $18,000. As shown in Table III-1, beginning teachers in Arkansas and Kentucky experienced double-digit salary jumps over beginning teachers in 1991-92, and Oklahoma reported a 9.8 percent increase. Only three other states experienced gains greater than six percent--Vermont, Kentucky, and Idaho. The actual average beginning salary stands at 64.8 percent of the U.S. average. This ratio varied from a low of 55 percent in Rhode Island to 79 percent in Alabama. Southern states typically have higher starting salaries relative to the average salary.

Beginning Teacher Salary Trends Over Time. Despite the attention given to beginning teacher salaries in the 1980's, the beginning teacher finally overtook the 1972 inflation-adjusted beginning salary in 1991 (see Table III-2). In contrast, the inflation-adjusted average teacher salary overtook the 1972 level in 1986. The expected beginning salary of teachers in spring 1992 of $23,528 exceeds the comparable 1972 figure of $23,339 by about $200.

Trends in Beginning Teacher Salaries Relative to Expected Salaries of College Graduates in the Private Sector. Beginning offers in business for new college graduates in other white-collar occupations remain high compared to beginning teachers, ranging from 49 percent more for engineers to 13 percent more for liberal arts graduates in spring 1992. The earnings advantage of these white-collar occupations, however, is at about the same level as in 1974 and has changed little since 1988. Combining the past two years, only engineering graduates had higher beginning salary growth than teachers. Table III-3 contains these data, and Figure III-1 graphs the relationship between starting salaries.

Starting salaries in other white-collar occupations show less stability among each other over time than do the average salaries. Private employers tend to make labor market adjustments through the hiring of, and salaries given to, beginning employees.

As in the average salary comparison, beginning salaries in other occupations gained on teacher salaries from the mid-1970's until about 1982 (except for accounting, which has shown a slow but continuous decline relative to beginning teacher salaries through 1985).

New Hires Entering Teaching for the First Time. For 36 states reporting data for 1990-91, beginning teachers comprised as much as 4.2 percent of classroom teachers, as shown in Table III-3. Seven states reported that more than 5 percent of their teachers were beginning teachers in 1990-91. For 33 states reporting data for 1991-92, beginning teachers comprised 4.4 percent of classroom teachers. Among the 31 states reporting data for both years, only eight indicated hiring more new teachers. Conclusions based on these data should be strictly speculative, given that many states do not collect these data, the inconsistencies in definitions among states, and the utilization of an unweighted average.

Reentering Teachers. The definition of "reentering teacher" varies from state to state, but the figure ideally represents experienced teachers who did not teach in a public school or an out-of-state school the prior year. Reentering teachers may also include reappointments after layoffs, maternity reinstatements and illness reinstatements. The data frequently include out-of-state experienced teachers and teachers from private school backgrounds, even if there is no break in service. Specific exceptions to these generalizations noted by State Departments of Education are footnoted in Table III-4.

Based on data from 28 states in 1990-91 and 22 states in 1991-92 listed in Table III-4, the number of experienced teachers reentering the classroom in the typical state fell below the number of beginning teachers in both 1990-91 and 1991-92. Returning experienced teachers comprised as much as 3.4 percent (unweighted average) of classroom teachers in 1990-91 and 3.3 percent in 1991-92. Beginning teachers comprised 4.2 and 4.4 percent of teachers during the same two-year period. Again, conclusions based on this data should be considered very speculative.

Teacher Retirement. Approximately 36 states reported retirement figures for either 1989-90 or 1990-91, as shown in Table III-5. The average retirement rate (unweighted) was 2.6 and 2.8 percent for the two years, ranging from a low of .2 percent in West Virginia to 10.2 percent in Delaware. Delaware instituted an early retirement program in 1990-91. The number of retirements changed by more than 20 percent in a single year in Delaware (up 42 percent), Maine (up 52 percent), Massachusetts (up 22 percent), Minnesota (up 28 percent), New York (up 23 percent), Ohio (up 24 percent), South Dakota (up 93 percent), West Virginia (down 96 percent), and Wisconsin (up 37 percent). Only about a third of the states reported a decline in the number of retirements. Early retirement programs in some states substantially altered the normal retirement rate. Due to an early retirement program, Delaware lost 10 percent of its teaching force for the 1991-92 school year.

Interstate comparisons should be considered strictly speculative because most state retirement systems cannot distinguish between retirees who had been classroom teachers the previous year, and all other new retirees. Other entrants could include former teachers newly eligible to draw retirement benefits and nonteaching professional personnel including administrators. Some teachers are eligible to draw retirement benefits in two or more states.

TABLE III–1

ACTUAL AVERAGE BEGINNING BA TEACHER SALARIES, 1990–91 AND 1991–91

	State	Beginning Salary 1991–92	Average Salary 1991–92	Beginning To Average Salary Ratio	Beginning Salary 1990–91	Increase in: Beginning Salary	Increase in: Average Salary
1	Alaska	$30,429 b	$43,800	69.5%	$29,950 b	1.6%	0.9%
2	New York	27,166 bc	43,335 c	62.7%	26,375 c	3.0%	3.0%
3	Connecticut	26,718	47,510	56.2%	25,312	5.6%	7.0%
4	New Jersey	26,162	41,027	63.8%	24,743	5.7%	6.8%
5	California	24,700 a	40,425	61.1%	23,693	4.3%	2.5%
6	Hawaii	24,208	34,488	70.2%	23,614	2.5%	2.8%
7	Maryland	24,069	39,073	61.6%	23,584	2.1%	2.0%
9	Pennsylvania	23,750 b	38,715	61.3%	23,000 b	3.3%	7.4%
8	D.C.	23,325	39,673	58.8%	23,325	0.0%	0.6%
10	Michigan	23,250 b	40,700 a	57.1%	22,350 b	4.0%	2.0%
11	Nevada	23,228	36,989	62.8%	22,250	4.4%	4.9%
12	Virginia	23,200 b	32,243	72.0%	23,000 b	0.9%	2.9%
13	Illinois	22,899 a	36,528 a	62.7%	21,924	4.4%	5.5%
14	Massachusetts	22,889 b	37,256	61.4%	21,779	5.1%	2.2%
15	New Hampshire	22,500 b	33,170	67.8%	21,500 b	4.7%	6.3%
16	Wisconsin	22,141 a	35,227	62.9%	20,689	7.0%	6.5%
17	Minnesota	22,039 b	33,700	65.4%	21,607	2.0%	1.7%
18	Arizona	21,750 b	31,176	69.8%	21,400 b	1.6%	1.3%
19	Rhode Island	21,692	39,367	55.1%	20,887	3.9%	3.0%
20	Washington	21,533 a	34,880	61.7%	20,637	4.3%	5.4%
21	Delaware	21,532	34,548	62.3%	21,112	2.0%	-2.0%
22	Alabama	21,400 b	26,954	79.4%	21,400 b	0.0%	0.3%
23	Florida	21,398	31,070	68.9%	21,368	0.1%	1.7%
24	Oregon	21,303	34,101	62.5%	20,357 g	4.6%	5.6%
25	Georgia	21,144 a	29,539 a	71.6%	20,765 a	1.8%	1.3%
26	Texas	21,100 b	29,719	71.0%	20,450 b	3.2%	3.8%
27	Indiana	21,081 b	34,247	61.6%	20,467	3.0%	4.0%
28	Colorado	20,906	33,072	63.2%	19,786	5.7%	3.9%
29	Vermont	20,758 b	33,200	62.5%	19,491	6.5%	6.3%
30	Missouri	20,652	28,923	71.4%	20,230	2.1%	2.3%
31	Kentucky	20,559	30,880	66.6%	19,311	6.5%	6.1%
32	Tennessee	20,371	28,621	71.2%	20,150	1.1%	1.3%
33	Wyoming	19,925	30,425	65.5%	19,568	1.8%	4.9%
34	Iowa	19,873	29,196	68.1%	19,404	2.4%	4.4%
35	North Carolina	19,810	29,334 a	67.5%	19,810	0.0%	3.7%
36	South Carolina	19,706 a	28,209 a	69.9%	19,775	-0.3%	-0.3%
37	Arkansas	19,500 a	27,168 a	71.8%	17,458	11.7%	13.8%
38	New Mexico	19,499	26,244	74.3%	19,124	2.0%	1.8%
39	Kansas	19,438 f	29,101 f	66.8%	18,954 f	2.6%	3.3%
40	Maine	19,288	30,097	64.1%	18,878	2.2%	5.5%
41	West Virginia	19,278	27,366	70.4%	18,278	5.5%	5.4%
42	Nebraska	18,779	27,231	69.0%	18,344	2.4%	2.4%
43	Ohio	18,705 a	33,198 a	56.3%	18,452	1.4%	3.9%
44	Mississippi	18,664	24,368	76.6%	18,510	0.8%	0.3%
45	Oklahoma	18,660	26,514	70.4%	17,000	9.8%	3.7%
46	Montana	18,407 b	27,590	66.7%	18,225	1.0%	3.0%
47	Utah	17,804 i	26,524 a	67.1%	17,234 i	3.3%	3.7%
48	Louisiana	17,686 b	26,411	67.0%	17,486	1.1%	0.9%
49	South Dakota	17,496	23,291	75.1%	16,650	5.1%	4.1%
50	North Dakota	16,897	24,495	69.0%	16,274	3.8%	3.9%
51	Idaho	16,721	26,345	63.5%	15,685	6.6%	3.3%
	U.S. Average	$22,171	$34,213	64.8%	$21,481	3.2%	3.6%
	Virgin Islands	20,225	31,113	65.0%	20,225	0.0%	0.0%

a=estimate or preliminary; b=AFT estimate; c=median; d=excludes state-paid health insurance; e=includes extra duty and extracurricular pay; f=estimated to exclude fringes; g=includes 6% pension pick-up in Oregon, and 9.5% in Nevada.

TABLE III-2

BEGINNING TEACHER SALARIES AND EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED IN SPRING

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Teaching	$6,970	$8,058	$9,085	$10,062	$11,676	$13,539	$15,482	$17,667	$19,571	$21,743	$22,710	$23,528 *
Engineering	10,608	11,556	13,980	16,680	20,136	25,128	26,844	28,512	29,820	32,304	34,344	35,064
Accounting	10,356	11,040	12,396	13,464	15,720	18,876	20,172	21,216	24,324	27,408	28,380	28,440
Sales/Marketing	8,904	9,864	11,316	12,636	15,936	18,072	19,620	20,688	22,848	27,828	26,964	27,144
Business Admin.	8,568	9,000	10,224	12,048	14,100	17,940	19,416	21,324	22,920	26,496	26,208	27,024
Liberal Arts	8,328	8,892	10,020	11,400	13,296	16,956	19,344	21,060	22,596	26,244	26,112	26,472
Chemistry	9,840	10,200	11,928	14,700	17,124	21,552	24,192	24,264	25,692	29,088	31,920	30,048
Math or Statistics	9,276	10,680	12,384	13,632	17,604	20,892	22,416	23,976	26,112	28,944	29,916	28,944
Economics/Finance	9,240	10,176	10,644	12,072	14,472	18,564	20,484	22,284	23,136	26,712	27,660	27,072
Computer Science		9,672		14,160	17,712	22,068	24,864	26,172	27,372	29,100	32,160	31,488
Others	9,264	10,344	11,820	13,848	17,544	20,460	23,136	26,724	26,316	28,728	34,344	28,068

(1992 Dollars)

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Teaching	23,339	22,096	22,215	21,151	19,254	19,742	20,924	22,753	23,114	23,126	23,437	23,528
Engineering	35,521	31,687	34,184	35,063	33,205	36,640	36,280	36,721	35,218	34,359	35,443	35,064
Accounting	34,677	30,272	30,311	28,303	25,923	27,524	27,262	27,324	28,727	29,152	29,288	28,440
Sales/Marketing	29,815	27,048	27,670	26,562	26,279	26,351	26,516	26,644	26,984	29,599	27,827	27,144
Business Admin.	28,690	24,679	25,000	25,326	23,252	26,159	26,241	27,463	27,069	28,182	27,047	27,024
Liberal Arts	27,887	24,382	24,501	23,964	21,926	24,724	26,143	27,123	26,686	27,914	26,948	26,472
Chemistry	32,950	27,969	29,167	30,901	28,238	31,425	32,695	31,250	30,343	30,939	32,941	30,048
Math or Statistics	31,061	29,285	30,282	28,656	29,030	30,463	30,295	30,879	30,839	30,786	30,873	28,944
Economics/Finance	30,940	27,903	26,027	25,377	23,865	27,069	27,684	28,700	27,324	28,412	28,545	27,072
Computer Science	0	26,521	0	29,766	29,208	32,178	33,604	33,707	32,327	30,951	33,189	31,488
Others	31,021	28,364	28,903	29,110	28,931	29,833	31,268	34,418	31,080	30,556	35,443	28,068

* Estimated to be a 3.6 percent increase; ERS estimate of beginning teacher salary is used to maintain continuity of longitudinal data base.

(Table III–2 Continued)

RATIO OF EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED TO BEGINNING TEACHERS SALARIES

	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Teaching	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Engineering	1.52	1.43	1.54	1.66	1.72	1.86	1.73	1.61	1.52	1.49	1.51	1.49
Accounting	1.49	1.37	1.36	1.34	1.35	1.39	1.30	1.20	1.24	1.26	1.25	1.21
Sales/Marketing	1.28	1.22	1.25	1.26	1.36	1.33	1.27	1.17	1.17	1.28	1.19	1.15
Business Admin.	1.23	1.12	1.13	1.20	1.21	1.33	1.25	1.21	1.17	1.22	1.15	1.15
Liberal Arts	1.19	1.10	1.10	1.13	1.14	1.25	1.25	1.19	1.15	1.21	1.15	1.13
Chemistry	1.41	1.27	1.31	1.46	1.47	1.59	1.56	1.37	1.31	1.34	1.41	1.28
Math or Statistics	1.33	1.33	1.36	1.35	1.51	1.54	1.45	1.36	1.33	1.33	1.32	1.23
Economics/Finance	1.33	1.26	1.17	1.20	1.24	1.37	1.32	1.26	1.18	1.23	1.22	1.15
Computer Science		1.20		1.41	1.52	1.63	1.61	1.48	1.40	1.34	1.42	1.34
Others	1.33	1.28	1.30	1.38	1.50	1.51	1.49	1.51	1.34	1.32	1.51	1.19

ANNUAL PERCENT INCREASE IN BEGINNING TEACHER SALARIES AND EXPECTED SALARIES OF COLLEGE GRADUATES

	1974	1976	1978	1980	1982	1984	1986	1988	1990	1991	1992
Teaching	7.0%	5.5%	5.7%	9.6%	7.5%	8.4%	5.8%	4.9%	5.4%	4.4%	3.6%
Engineering	6.4%	9.7%	11.9%	10.1%	12.3%	4.0%	6.1%	3.1%	5.6%	6.3%	2.1%
Accounting	2.0%	4.3%	5.2%	6.6%	11.2%	3.6%	2.9%	8.0%	3.2%	3.5%	0.2%
Sales/Marketing	2.2%	9.4%	7.7%	21.7%	4.9%	5.2%	0.3%	12.9%	8.8%	-3.1%	0.7%
Business Admin.	3.9%	4.7%	13.2%	4.7%	10.7%	4.6%	7.2%	4.3%	8.7%	-1.1%	3.1%
Liberal Arts	2.3%	7.6%	9.7%	4.3%	10.3%	5.9%	11.9%	10.2%	7.8%	-0.5%	1.4%
Chemistry	0.8%	7.1%	10.6%	8.3%	10.3%	8.3%	0.2%	-5.0%	2.1%	9.7%	-5.9%
Math or Statistics	11.8%	4.0%	8.7%	21.7%	12.3%	3.3%	5.6%	2.2%	9.9%	3.4%	-3.2%
Economics/Finance	7.3%	-3.1%	6.7%	10.7%	10.0%	3.8%	6.3%	5.2%	5.4%	3.5%	-2.1%
Computer Science				14.8%	8.4%	7.1%	8.3%	4.2%	4.8%	10.5%	-2.1%
Others	6.7%	13.0%	11.8%	20.5%	2.2%	9.4%	21.6%	19.9%	13.7%	19.5%	-18.3%

Figure III-1

Trends in Beginning Salaries for
College Graduates in Selected Occupations

(1992 Dollars)

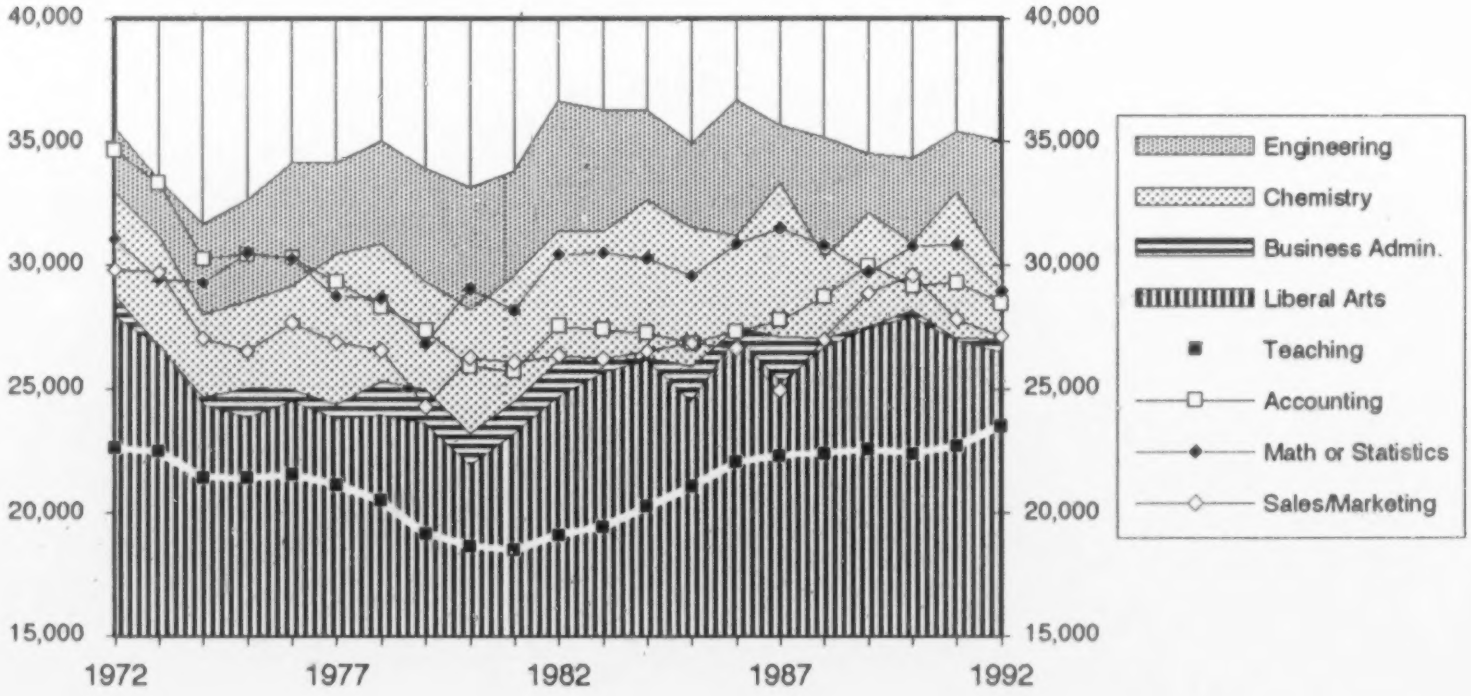


TABLE III–3

NEW HIRES ENTERING TEACHING FOR THE FIRST TIME FOR STATES REPORTING DATA

State	Beginning Teachers 1990–91		Beginning Teachers 1991–92		Percent Change	Percent of Classroom Teachers 1990–91	Percent of Classroom Teachers 1991–92
Alabama	1,760	b				4.9%	
Arkansas	1,384	d	1,361	a	-1.7%	5.3%	5.2%
Connecticut	985	c	669	c	-32.1%	2.9%	1.9%
Delaware	124		398		221.0%	2.1%	6.6%
D.C.	133	b				2.2%	
Florida	8,674		6,513		-24.9%	8.0%	5.9%
Georgia	3,490	a	3,742	a	7.2%	5.5%	5.6%
Idaho	881		950	a	7.8%	7.8%	8.3%
Illinois	4,137		3,765		-9.0%	3.8%	3.4%
Indiana	932					1.7%	
Kansas	1,404		1,312		-6.6%	4.8%	4.3%
Kentucky	1,349		1,347		-0.1%	3.7%	3.6%
Louisiana	2,383	b				4.9%	
Maine	323		190		-41.2%	2.1%	1.2%
Maryland	1,557					3.7%	
Michigan	2,683	d				3.4%	
Minnesota	1,685		1,633		-3.1%	3.9%	3.7%
Missouri	2,521	d	2,031	d	-19.4%	9.0%	7.3%
Nebraska	873	d	817	d	-6.4%	4.7%	4.5%
New Jersey	1,015		1,063		4.7%	9.5%	10.0%
New Mexico	642		752		17.1%	3.8%	4.9%
New York	5,200	d	3,100	a	-40.4%	2.9%	1.6%
North Carolina	3,170		3,740		18.0%	4.9%	5.8%
North Dakota	372		230		-38.2%	4.9%	3.5%
Ohio	2,587		2,611	a	0.9%	2.5%	2.5%
Oklahoma	2,565		2,457		-4.2%	6.9%	6.6%
Oregon	1,047		970		-7.4%	4.0%	4.1%
Pennsylvania	2,756	abe				2.7%	
South Carolina	928	f	869	f	-6.4%	2.5%	2.3%
South Dakota	414		477		15.2%	4.9%	5.7%
Utah	949		1,034		9.0%	2.2%	2.4%
Virginia	2,200	a	2,200	a	0.0%	3.5%	3.4%
Washington	1,004	g	1,002	g	-0.2%	2.4%	2.2%
West Virginia	542		308		-43.2%	2.5%	1.5%
Wisconsin	1,484		2,673		80.1%	3.0%	5.1%
Wyoming	200	a	200	a	0.0%	2.9%	3.3%
Unweighted Average	1,788		1,669		-6.6%	4.2%	4.4%

a=Estimate or preliminary.
b=From previous survey.
c=Teachers with no in-state teaching experience in public schools.
d=All new with no prior teaching experience.
e=Students receiving instructional certificate for first time and teaching in state.
f=Teachers under age 27 credited with zero years of teaching experience.
g=Graduated in prior two years.

TABLE III–4

EXPERIENCED TEACHERS REENTERING TEACHING FOR STATES REPORTING DATA

State	Reentering Teachers 1990–91	Reentering Teachers 1991–92	Percent Increase	Percent of Classroom Teachers 1990–91	Percent of Classroom Teachers 1991–92	Percent of New Hires 1990–91	Percent of New Hires 1991–92
Alabama	1,220 b			3.4%		40.9%	
Arkansas	543 c	634 c	16.8%	2.1%	2.4%	28.2%	31.8%
Connecticut	1,268 d	820 d	-35.3%	3.7%	2.4%	56.3%	55.1%
Delaware	86	238	176.7%	1.4%	3.9%	41.0%	37.4%
D.C.	142 b			2.3%		51.6%	
Florida	1,393 b			1.3%		13.8%	0.0%
Georgia	3,659 a	3,804 a	4.0%	5.8%	5.7%	51.2%	50.4%
Hawaii	277 f	367 f	32.5%	3.0%	4.0%	22.6%	31.4%
Illinois	3,815	3,462	-9.3%	3.5%	3.1%	48.0%	47.9%
Indiana	1,077			2.0%		53.6%	
Kansas	392	562	43.4%	1.3%	1.8%	21.8%	30.0%
Kentucky	1,903	1,727	-9.2%	5.2%	4.6%	58.5%	56.2%
Minnesota	945 g	666 g	-29.5%	2.2%	1.5%	35.9%	29.0%
Missouri	2,768	2,221	-19.8%	5.3%	4.2%	52.3%	52.2%
New Jersey	1,876	1,648	-12.2%	2.3%	2.0%	64.9%	60.8%
New Mexico	909	969	6.6%	5.4%	6.3%	58.6%	56.3%
New York	13,785 h	12,873 h	-6.6%	7.8%	6.8%	72.6%	80.6%
North Carolina	1,154 b			1.8%		26.7%	0.0%
North Dakota	498	174	-65.1%	6.6%	2.7%	57.2%	43.1%
Ohio	4,415	4,488 a	1.7%	4.3%	4.3%	63.1%	63.2%
Oklahoma	1,351	982	-27.3%	3.6%	2.7%	34.5%	28.6%
South Carolina	2,392 j	2,370 j	-0.9%	6.5%	6.4%	72.0%	73.2%
South Dakota	201	231	14.9%	2.4%	2.8%	32.7%	32.6%
Tennessee	1,423			3.3%			
Washington	1,065 e	873 e	-18.0%	2.6%	1.9%	51.5%	46.6%
West Virginia	305	49	-83.9%	1.4%	0.2%	36.0%	13.7%
Wisconsin	457	1,816	297.4%	0.9%	3.5%	23.5%	40.5%
Wyoming	200 b	100 a	-50.0%	2.9%	1.7%	50.0%	33.3%
Unweighted Avg	1,769	1,867	5.6%	3.4%	3.3%		

a=Estimate or preliminary.
b=From previous survey.
c=Did not teach last year, but has taught in public schools.
d=New hires with prior state experience.
e=May include those who taught in private schools in previous years.
f=Includes out-of-state and private school transfers.
g=Does not include transfers from other states.
h=May include out-of-state and private school transfers.
i=Does not include transfers from other states or private schools.
j=Newly hired teachers over age 26 or with any kind of previous teaching experience.

Table III–5

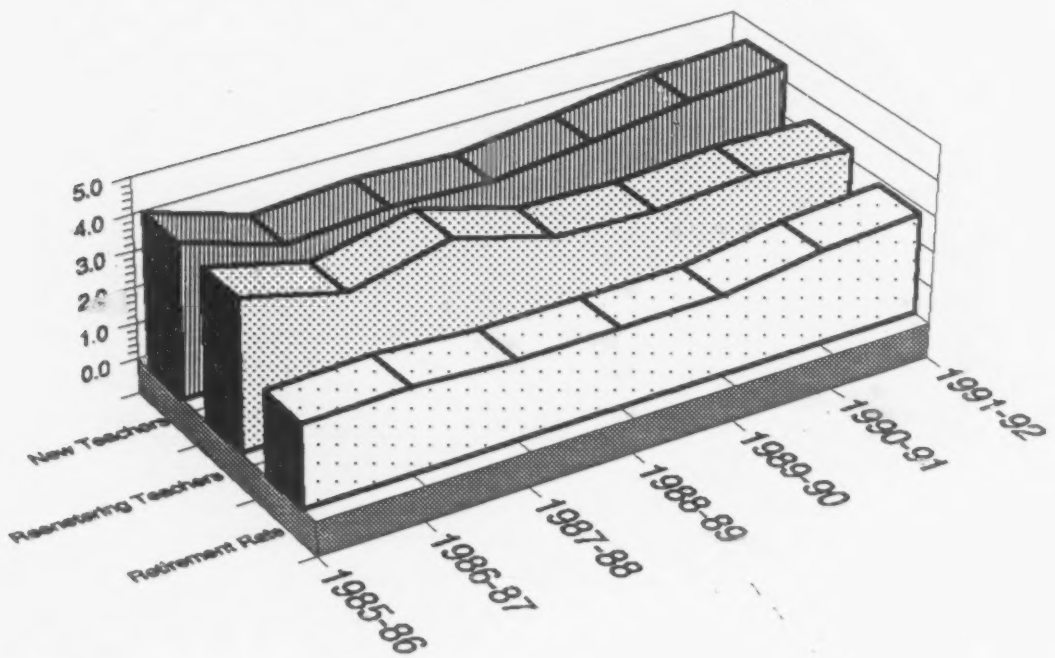
TEACHER RETIREMENT RATE FOR STATES REPORTING DATA

State	Retiring Teachers 1989–90	Retiring Teachers 1990–91	Percent Increase	Percent of Classroom Teachers 1989–90	Percent of Classroom Teachers 1990–91
Alaska	199 b			3.0%	
Arkansas	664	538	-19.0%	2.6%	2.1%
California	6,800 ad	7,172 d	5.5%	3.1%	3.2%
Connecticut	977	1,039	6.3%	2.8%	3.0%
Delaware	118 e	617 e	422.9%	2.0%	10.2%
D.C.	81 b			1.3%	
Florida	1,393	1,195 a	-14.2%	1.3%	1.1%
Georgia	2,251	2,008	-10.8%	3.6%	3.0%
Hawaii	278	243	-12.6%	3.1%	2.6%
Idaho	187	170	-9.1%	1.7%	1.5%
Illinois	1,310 f	1,405 f	7.3%	1.2%	1.3%
Kansas	365	396	8.5%	1.3%	1.3%
Kentucky	1,017	1,042	2.5%	2.8%	2.8%
Louisiana	1,847	1,954	5.8%	3.8%	4.3%
Maine	183	279	52.5%	1.2%	1.8%
Massachusetts	638	782	22.6%	1.1%	1.3%
Michigan	5,120	5,165	0.9%	6.4%	6.5%
Minnesota	897	1,150	28.2%	2.1%	2.6%
Missouri	932	1,029	10.4%	1.8%	1.9%
Nebraska	463 d	469 d	1.3%	2.5%	2.6%
New Jersey	1,279	1,255	-1.9%	1.6%	1.6%
New Mexico	264	298	12.9%	1.6%	1.9%
New York	5,253	6,465	23.1%	3.0%	3.4%
North Carolina	5,456	5,520	1.2%	8.5%	8.6%
North Dakota	284 b			3.7%	
Ohio	2,906	3,608	24.2%	2.8%	3.5%
Oregon	691	668	-3.3%	2.6%	2.8%
Pennsylvania	1,881	1,917	1.9%	1.9%	1.9%
South Dakota	70	135	92.9%	0.8%	1.6%
Tennessee	383	375	-2.1%	0.9%	0.9%
Virginia	1,707	1,760	3.1%	2.7%	2.8%
Washington	1,118 d	1,131 a	1.2%	2.7%	2.5%
West Virginia	1,375 c	46 c	-96.7%	6.4%	0.2%
Wisconsin	987 a	1,350 a	36.8%	2.0%	2.6%
Wyoming		200 a			3.3%
Unweighted Average	1,452	1,606	19.4%	2.6%	2.8%

a=Preliminary or estimate.
b=From previous survey.
c=Early retirement provisions stimulated retirement.
d=Includes all persons, active and inactive, who paid into the teacher retirement system.
e=During Spring 1991, 10.3 percent of teachers elected to retire early.
f=Excludes Chicago teachers.

Figure III-2

Trends In Hiring New Teachers, The Reentry of Experienced Teachers and Retirement



	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
New Hires:							
No Experience	4.3%	3.4%	3.6%	3.5%	3.8%	4.2%	4.4%
Reentering With Experience	4.2%	3.5%	4.1%	3.3%	3.2%	3.4%	3.3%
Retirement Rate	2.3%	2.4%	2.2%	2.2%	2.2%	2.6%	2.6%

IV. International Comparisons

Until recently, nearly everyone believed that the United States spent more on education than other economically advanced nations which regularly surpass the U.S. in tests of educational performance. We were told that the U.S. lavishes unsurpassed resources on education, that we spend far more per pupil than any other nation, and that we spend a very large amount of our national income on education. The combination of apparently high spending with low test scores served to rule out increasing or maintaining financial support for education as a key component of educational reform.

A close examination of the data, however, reveals a different story. The public educational spending effort of the United States in all educational sectors ranked in the bottom third of industrialized nations in 1987. Public spending on elementary and secondary education ranked about the same as total public spending. Even public spending effort on the extensive U.S. higher education enterprise fell below average despite having nearly twice as many students relative to population as every other country except Canada. These findings and the other findings detailed in Tables IV-1 and IV-2 are derived from the AFT research report, "International Comparison of Public Spending on Education" available from the AFT Research Department.

Public Funding on Education. Public funding of education in 1987 in the United States, excluding capital outlay and debt service, comprised 4.7 percent of its Gross Domestic Product, ranking 12th among 15 industrialized countries (Table IV-1). Denmark, Canada and Sweden spent more than 6.5 percent of their GDP on education, and Germany ranked the lowest, spending just 4.0 percent of its GDP on public funding of education. Approximately 72 percent of public education spending is devoted to pre-K, elementary and secondary school in the United States, higher than the 15 country average of 67 percent. At 3.7 percent of the GDP, U.S. public spending on elementary and secondary education ranks 11th among the 15 countries. Germany, the lowest effort country, contributes 3.1 percent of its GDP. Sweden, Denmark, and Norway contribute at least 5.0 percent of their GDP to public spending on elementary and secondary education. At 1.0 percent of GDP, public spending on higher education in the United States ranks 9th among the 15 countries. Canada contributes 2.1 percent towards public spending on education followed by the Netherlands, Denmark, and Australia. Germany, France and Italy rank at the bottom.

Despite the highest standard of living in the world in 1987, five other nations spent more per pupil at the elementary and secondary level, and four spent more per capita. The per capita and per pupil expenditure figures represent disparities in real resource utilization and not differences in effort or resource utilization relative to national income. In 1987, public spending on education in the United States was $3,398 per pupil (both public and private pupils) for all levels of education except higher education when comparisons are made on the basis of Purchasing Power Parities. As shown in Table IV-1, this figure ranks the U.S. 6th among the 15

countries behind Sweden, Canada, Denmark, Switzerland, and Norway. Again, when converting currencies with Purchasing Power Parities (PPP's), the U.S. spent only $860 per person in public monies, ranking the U.S. behind four other countries.

Demographic and School Structure Factors Influencing Educational Spending. Relative to its total population, the U.S. tends to have more students than all of the other industrialized countries except France, as shown in Table IV-2. Furthermore, the U.S. has the highest percentage of the population enrolled in higher education programs--double the percentage of any other country except Canada. With a total fertility rate of 1.87 compared to the 15 country average of 1.65, the U.S. ranks second behind Australia. The U.S. also ranks 2nd according to the percentage of the population enrolled aged 4 to 15, with 14.1 percent of the population in this age group. Austria and Switzerland have less than 12 percent of their population in this age group, and Germany has less than 10 percent. The small school-aged cohort and a low enrollment ratio in secondary education explain the low public spending levels on education in Germany.

At the elementary or primary level, U.S. schools averaged 352 pupils per school, well above the 15-nation average of 186 and second only to the Japanese average size of 412 pupils. The U.S. number may be slightly inflated since grades 1 through 8 are classified as elementary schools while in the other countries, primary grades generally include only the first four to six grades. Because of the small school size in European countries, school principals usually teach, thus keeping administration costs down. With about 9 percent of its elementary and secondary students in private schools, the U.S. has the sixth highest private school enrollment rate. While Belgium and the Netherlands have more than half of their students in private schools, these schools are heavily subsidized by public funds.

Teacher Salaries. Generally, U.S. teachers enjoy a standard of living at least comparable to teachers in other nations, but in a country with the highest standard of living in the world, U.S. teachers generally get paid less relative to the general wealth of its citizenry. The low relative pay partly explains the difficulty faced by the U.S. in attracting teachers from the top half of college graduates. International pay disparities occur most strikingly at the secondary level.

The salary data in Tables IV-3 and IV-4 represent early results from an ongoing AFT study of international teacher salaries. The first salary table lists the beginning, mid-career (about 15 years), and top salaries at both the primary and secondary level. Two secondary level salary grades are described for Germany, Switzerland and Austria with one representing teachers educated at the Gymnasium level, and one representing teachers with lesser qualifications. In addition to the basic salary schedule, the "supplements" and bonuses for family status, location, and a variety of other purposes are included. The assumptions about pay levels and supplements are contained in Table IV-3. In the U.S., the maximum salary is attained in an average of 16 years. The top is generally reached sooner in Australia, Canada, and England

while it takes about 30 years to get top pay in Italy, Belgium, the Netherlands, Germany and Japan.

When converting currencies with PPP's, only Canada and Switzerland have higher starting salaries than the U.S. at the primary level. Germany, Belgium and Denmark also pay beginning teachers at a higher level than in the U.S. at the secondary level. At the top pay levels, the relationship to U.S. earnings is roughly the same as for beginning teachers. U.S. secondary teachers earn more at mid-career than any other nation except Canada and Switzerland.

Relative to per capita Gross Domestic Product, however, a completely different picture emerges. At the beginning primary level, only Japan and Austria have a lower ratio of teacher pay compared to per capita GDP, and at the secondary level, the U.S. has the lowest ratio except in Japan. The mid-career high school teacher in the U.S. enjoys a 40 percent earnings advantage over the per capita gross domestic product, but this is a smaller advantage than any other country except Italy. The top level high school teachers in every country earned at least twice the per capita gross domestic product, except the U.S. (60 percent more), Italy (50 percent more) and Australia (60 percent more). At the primary level, only Australia, Italy and France had a noticeably lower salary to per capita GDP ratio at the senior teacher level.

Technical Considerations. When making international comparisons, small differences should be ignored due to data comparability problems. Generally, all international spending comparisons are of public spending on both public and private education, not total spending on education or spending on public education, or public spending on public education. The international comparisons in OECD and UNESCO data as well as those in the United States Statistical Abstract and the Digest of Education Statistics are made on the same basis although the UNESCO data and the U.S. Statistical Abstract incorrectly use the total spending figure for the U.S., which has been in the range of 6.7 to 6.8 percent of GDP. No comparative data on private expenditures yet exist. In some countries, private schools are heavily subsidized. In Germany, the extensive vocational education system at the secondary level is heavily subsidized by corporations. In U.S. higher education, public institutions receive substantial private funding, especially from tuition charges. As noted in the footnotes to Table IV-1, student charges for auxiliary services and tuition at public universities are treated as private expenditures.

Japanese spending data should be considered carefully. Total public spending on education was 16.1 trillion Yen in 1986. Current educational spending for both public and private spending was 15.3 trillion Yen in 1986. Public current education expenditure is not published separately. Private and public capital outlay spending is listed as 5.1 trillion Yen--about 25 percent of all private and public spending. This level of capital spending is surely incorrect (no other country exceeds 10 percent) and clearly some kind of data comparability problem exits.

The fiscal year is the same as the calendar year in most countries. In Canada and the United Kingdom, the fiscal year starts in April. In the United States, almost all state and local government fiscal years begin in July and the Federal fiscal years starts in October. International comparisons generally match fiscal year and school year data to the calendar year in which the fiscal or school year began. This practice is not appropriate for the United States where the overlap between the fiscal and calendar year is just six months at the state and local level. Almost all of the U.S. data in this section represent the average of the two fiscal or school years.

For some comparisons it was necessary to estimate a 1987 spending level for countries where data were available only for prior years. In these cases, education spending was assumed to grow in proportion to the growth of the Gross Domestic Product. This procedure maintains education spending as a constant share of the GDP.

For comparisons necessitating the conversion of national currencies to the U.S. data, the conversions were performed with PPP's rather than with Exchange rates. Conversion with PPP's is preferred. The use of PPP's was pioneered by the OECD, and they are used in making inter-country comparisons. Essentially, they function as an international price index. Identical salaries based on PPP's describe an identical standard of living, even though the countries wealth and currency may vary substantially. Exchange rates are influenced by trade imbalances, restrictive trade practices, unbalanced budgets, and a variety of other "market" factors unrelated to spending and salary comparisons.

TABLE IV-1

International Comparison Of Public Expenditures For Education In 1987

	Percent of Gross Domestic Product						Current Expenditures (PPP Conversion)					
	Current Expenditures		Elementary and Secondary (a)		Higher Education (a)		Gross Domestic Product Per Capita		Per Capita Expenditures		Per Pupil Expenditures	
	Percent	Rank	Percent	Rank	Percent	Rank	Dollars	Rank	Dollars	Rank	Ratio	Rank
Denmark	7.3%	1	5.5%	1	1.8%	3	$13,218	8	969	2	3,997	3
Sweden	6.5%	3	5.4%	2	1.1%	7	14,052	5	911	4	4,279	1
Norway	6.0%	4	5.0%	3	1.0%	11	16,181	3	966	3	3,636	5
France	5.6%	6	4.8%	4	0.9%	14	12,791	10	723	7	2,486	10
Canada	6.6%	2	4.5%	5	2.1%	1	17,355	2	1,153	1	4,054	2
Austria	5.4%	7	4.2%	6	1.1%	5	13,523	6	625	11	2,972	7
Belgium (b)	5.2%	8	4.2%	7	1.0%	8	11,755	14	613	12	2,492	9
Netherlands	5.9%	5	4.1%	8	1.8%	2	12,196	12	723	6	2,495	8
United Kingdom	4.8%	10	3.8%	9	1.0%	10	12,529	11	604	13	2,474	11
Italy (e)	4.4%	14	3.8%	10	0.6%	15	12,136	13	528	15	2,320	14
United States (d)	4.7%	12	3.7%	11	1.0%	9	18,297	1	860	5	3,398	6
Switzerland	4.5%	13	3.6%	12	0.9%	13	15,770	4	715	8	3,733	4
Japan (c)	4.8%	9	3.6%	13	1.2%	5	13,137	9	635	10	2,370	13
Australia	4.8%	11	3.2%	14	1.6%	4	13,523	6	646	9	2,060	15
West Germany	4.0%	15	3.1%	15	1.0%	12	13,296	7	536	14	2,450	12
Average (Unweighted)	5.4%		4.2%		1.2%		$13,984		747		3,014	

Note: Generally, data refer only to public expenditures on public and private education including public subsidies to private education. The year refers to the calendar year in which the fiscal year begins except in the United States, where the year is an average of the 1986-87 and 1987-88 school year or an average of the 1987 and 1988 fiscal years. For countries without 1987 expenditure data, education spending data were inflated by the growth rate of the Gross Domestic Product. Generally, pupil data include pre-K, Kindergarten and private school students, but exclude special education students.

a "Other education" and "unallocated" expenditures, averaging 6.8% and 6.9% of expenditures respectively, were proportionately allocated to the elementary /secondary and higher education categories.

b Ministry of Education expenditures only.

c Current expenditure data include private spending. Excluding higher education, about 7 percent of Japanese pupils attend private schools. Private schools and their students receive public subsidies.

d Average of 1986-87 and 1987-88 data. At the higher education level, student charges for auxiliary enterprises of $6.495 million, and tuition paid by students at public institutions of higher education ($14,452 billion) is omitted, but scholarships and aid to private schools ($7.573 million) is included.

e Expenditures reported by UNESCO as Ministry of Education spending were increased by 20% to reflect public spending at other governmental levels.

Map 6
Public Expenditures On Education
(Current Expenditures As a Percentage of Gross Domestic Product)

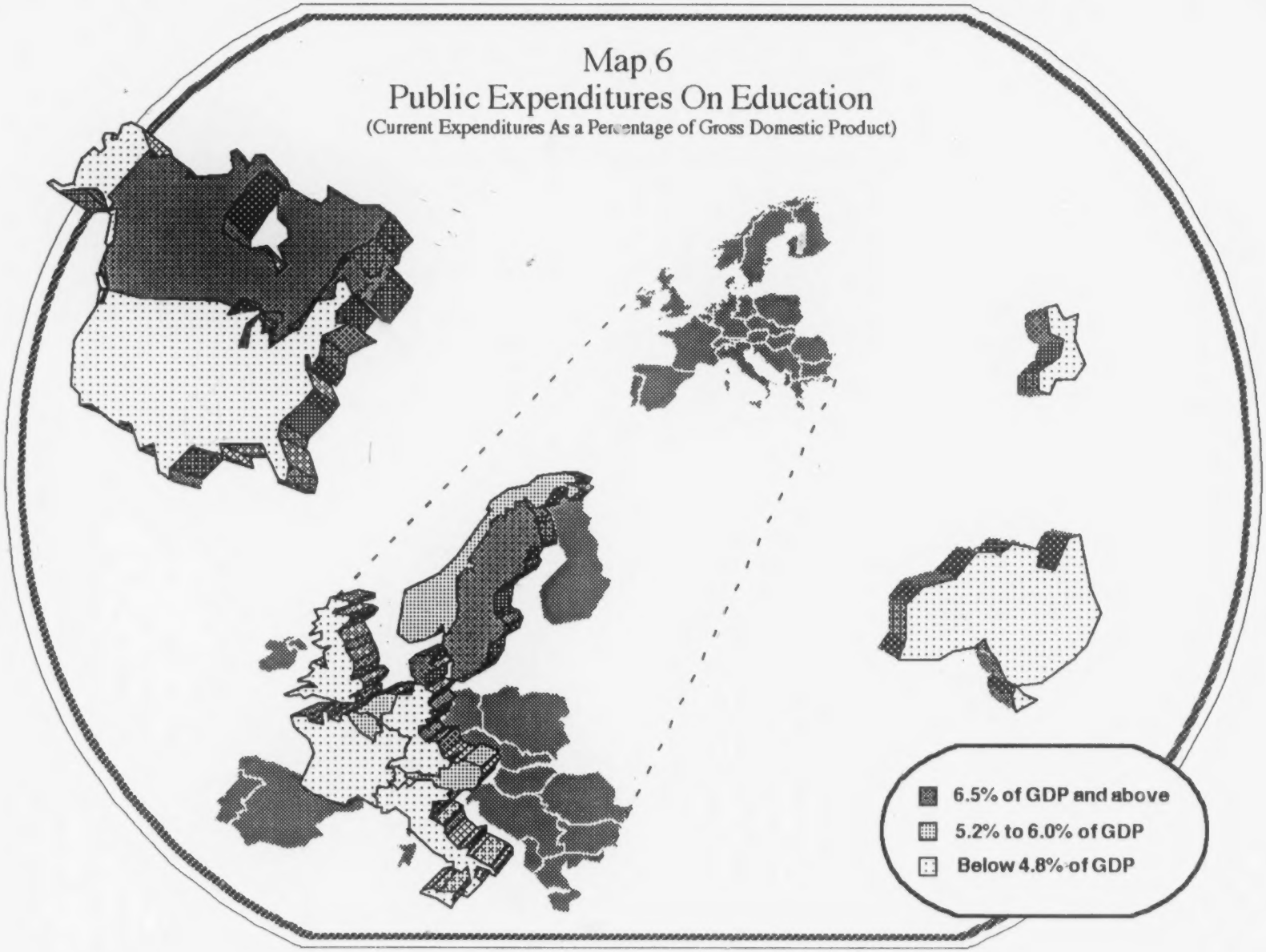


Figure IV-1 -- Gross Domestic Product Per Capita

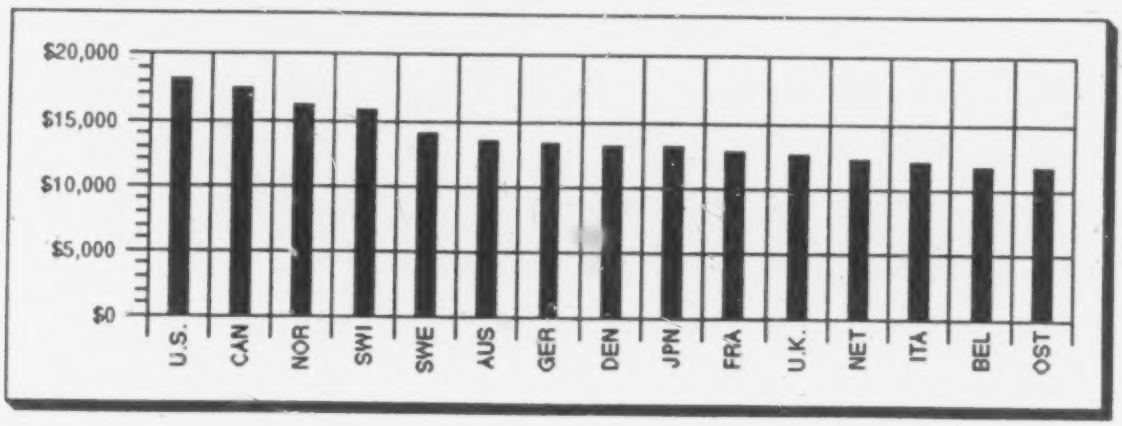


Figure IV-2 -- Public Spending On Education Per Capita

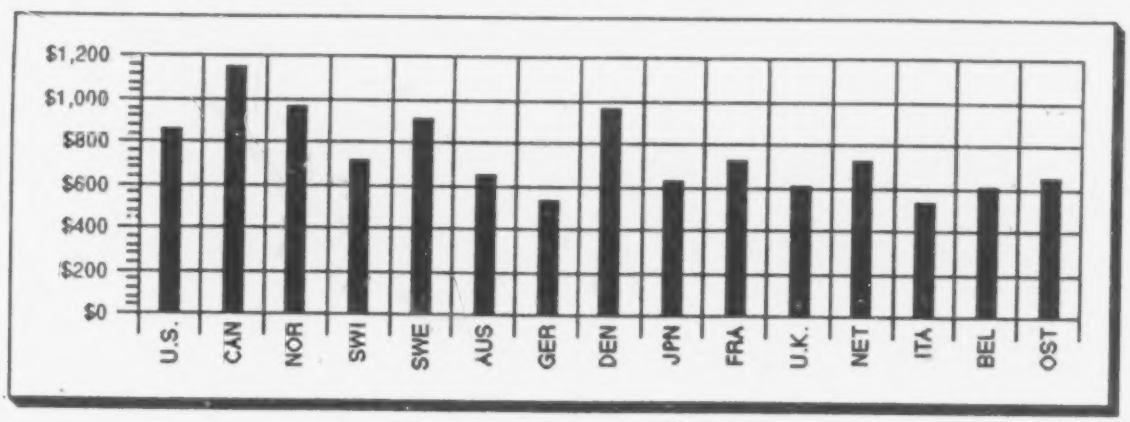
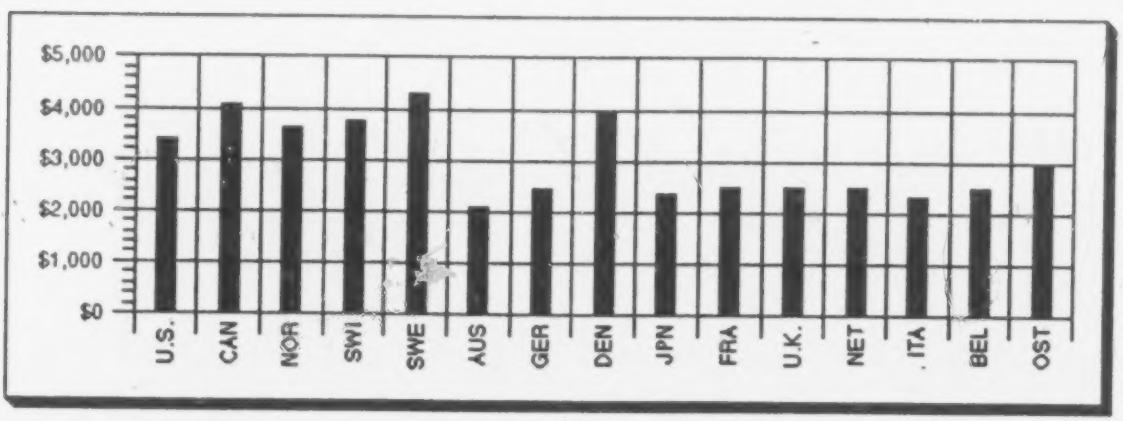


Figure IV-3 -- Public Spending On Education Per Pupil



Note: All figures in U.S. dollars using Purchasing Power Parities for currency conversion

Table IV-2

Demograhic and School Structure Factors Influencing Public Spending on Education

	Student Percent Of Population		Higher Ed. Students Per 1,000 Pop.		1989 Total Fertility Rate (a)		1989 Population Age 4-15		Pupils Per Elementary School		Students In Private Schools	
	Percent	Rank	Number	Rank	Rate	Rank	Percent	Rank	Pupils	Rank	Percent	Rank
Australia	18.7%	8	2.44	8	1.93	1	14.9%	1	190	4	26.6%	4
Austria	16.6%	13	2.51	7	1.53	11	12.0%	13	104	12	8.5%	8
Belgium	19.8%	3	2.56	6	1.59	8	12.6%	8	171	6	57.7%	2
Canada	19.5%	6	4.95	2	1.69	7	13.8%	3	289 d	3	4.7%	12
Denmark	18.3%	9	2.31	10	1.52	12	12.9%	7	155	8	26.6%	3
France	21.9%	1	2.39	9	1.79	3	13.4%	5	90	14	18.3%	5
Italy	18.0%	10	1.99	12	1.48	13	12.0%	12	127	10		15
Japan	19.5%	5	1.97	13	1.74	5	13.3%	6	412	1	7.8%	9
Netherlands	19.4%	7	2.74	3	1.56	9	12.1%	11	171	7	73.2%	1
Norway	19.7%	4	2.73	4			13.5%	4	93	13	2.3%	13
Sweden	17.6%	12	2.21	11	1.73	6	12.3%	9	124	11	1.4%	14
Switzerland	15.2%	15	1.87	15	1.56	10	11.6%	14			8.6%	7
United Kingdom	17.8%	11	1.88	14	1.77	4	12.2%	10	176	5	6.5%	10
United States	19.8%	2	5.14	1	1.87	2	14.1%	2	352 bc	2	9.5%	6
West Germany	16.0%	14	2.59	5	1.40	14	9.7%	15	146	9	5.6%	11
Average (Unweighted)	18.5%		2.69		1.65		12.7%		186		18.4%	

Source: Higher education student data from UNESCO Statistical Abstract 1989; Population age 4-15 and fertility rates from U.S. Bureau of the Census, Statistical Abstract, 1990; School size based on UNESCO data; Other data from other tables in this document.

a Average number of children that would be born per woman if all women lived to the end of their childbearing years, and at each year of age, they experienced the birth rates occurring in the specified year.
b Students in grades 1 to 8; schools include elementary and combined schools but not high schools.
c Average school size at all levels (elementary and high school) is 385.
d Schools at all levels (elementary and high school).

Table IV-3

Teacher Salaries In Selected Nations

	Effective Date	Grade, Lane, Or Education Requirement	National Currency				
			Starting	Mid-Career (~15 yrs.)	Maximum	Years To Max.	
United States	Sep-86	National Mean (j)	16,620	25,260	27,887	16	
United States	Sep-88	National Mean (j)	18,517	28,071	30,990	16	
United States	Sep-89	National Mean (j)	19,350	29,636	32,718	16	
United States	Sep-90	National Mean (j)	20,520	31,319	34,576	16	
United States	Sep-91	National Mean (j)	21,481	33,033	36,468	16	
United States	Sep-92	National Mean (j)	22,171	34,213	37,771	16	
Primary							
Belgium (k)	Sep-85	148	640,593	731,462	1,030,974	27	
Italy	Aug-85	Scale 6	14,800,000	17,584,000	21,127,800	40	
France (l)	Nov-85	Instituteur	83,486	106,022	128,560	24	m
Ireland	ay-91	Common Scale (n)	11,162	19,870	23,645	25	
Scotland	Jan-91	Common Scale (o)	10,746	17,767	19,291	11	
Denmark	Apr-91	Copenhagen	183,647	225,336	234,490	19	
Denmark	Jan-91	Rate II (Rural)	179,179	217,337	228,729	19	
Netherlands (q)	Jan-92	Scales 6-9	35,601	51,283	65,539	26	
Germany(a)	Jan-89	A12	44,974	54,385	65,379	28	
Switzerland(Zurich)	Jan-92	(r)	74,739	102,549	126,986	24	
Switzerland(Anatze)	Jan-92	(r)	60,868	82,070	90,056	18	
Australia (Victoria)	Oct-89	3 year degree	22,210	29,342	31,887	(c)	
England & Wales	Apr-90	(d)	9,000	15,723	17,112	10	
Japan (f)	Apr-90	4 year degree	215,004	350,960	617,460	36	
Austria (h)	Jan-90	L2B1	187,558	324,156	353,234	17	
Saskatchewan	Jan-89	Cat. 4,5 and 6 (i)	25,490	44,155	46,827	11	
Ontario (Toronto)	Sep-88	Cat. 4,6 and 7 (i)	25,051	50,829	53,718	11	
Secondary							
Belgium (k)	Jan-85	302	820,581	972,585	1,438,155	27	
Italy	Aug-85	Scale 7bis	15,650,000	19,374,000	23,177,800	40	
France (l)	Nov-85	Prof. Certificate	93,104	141,900	178,859	24	m
Ireland	ay-91	Common Scale (n)	11,162	22,245	26,020	25	
Scotland	Jan-91	Common Scale (o)	10,746	17,767	19,291	11	
Denmark (p)	Apr-91	Copenhagen	244,251	315,470	328,286	19	
Denmark (p)	Jan-91	Rate II (Rural)	238,308	304,272	320,221	19	
Netherlands (q)	Jan-92	Scales 10-12	45,477	77,566	97,563	26	
Germany(a)	Jan-89	A13	49,379	59,544	71,406	28	
Germany(a)	Jan-89	A14-Gymnasium	50,477	63,796	79,042	28	
Switzerland(Zurich)	Jan-92	Secondary (r)	87,094	112,775	135,704	21	
Switzerland(Anatze)	Jan-92	Secondary (r)	71,478	96,628	106,108	18	
Switzerland(Zurich)	Jan-92	Gymnasium (r)	103,318	136,756	158,549	19	
Switzerland(Anatze)	Jan-92	Gymnasium (r)	97,420	125,945	133,053	16	
Australia (Victoria)	Oct-89	Advanced Degree	24,655	32,068	36,187	(c)	
England & Wales	Apr-90	(e)	9,000	17,112	19,425	10	
Japan (f)	Apr-90	Masters Degree	217,626	442,390	645,242	32	
Austria (h)	Jan-90	L2A2	222,256	416,268	475,334	17	
Austria (h)	Jan-90	L1 (Gymnasium)	265,026	515,766	590,260	17	
Saskatchewan	Jan-89	Cat. 4,5 and 6 (i)	25,490	44,155	46,827	11	
Ontario (Ottawa)	Feb-89	Cat. 1,3 and 4 (i)	25,827	49,170	52,000	11	

a Includes supplement for married with one child at Tarifklasse 1b. (929 DM).
b Incudes 356 Fr./month for married with one child.
c Top of basic schedule reached in 8 years; Higher salaries reached by a fixed number of "promotions".
d Adds incentive scale B (£1,389), which is received by the typical primary teacher.
e Adds incentive scale B (£1,389) at mid-career, which is received by the typical secondary teacher.
Adds incentive scale D (£3,702), which is received by the typical secondary teacher at the maximum.
f Lower secondary on same scale as primary. To account for bonuses and supplements, 64 % is added to the primary base scale and 66% is added to the secondary base scale (see Barrow, 1986).
g Monthly salary multiplied by 12 with no supplements.
h Monthly salary multiplied by 14 plus supplements for Dienstzulagen group III and Gehaltsgesetz 9 to 12.
i Starting salary is 4 year degree, mid-career is a 5 year degree. Categories refer to starting, mid-career and maximum salary assumptions.
j Primary and secondary teachers are paid the same except for small demographic differences in education and experience. The average teacher in the U.S. has a Masters Degree. The maximum salary usually requires a Ph.D. (earned by about 1% of teachers).
k Includes housing, holiday bonus (21,965*1%) and year-end bonus (8,000+2.5%).
l Includes Zone 1 housing allowance (1%) and family allowance (480+3%).
m 18-28 years depending on quota system. Mid-career estimates are half way between minimum and maximum.
n Includes masters degree (1,960), and H. Dip. in Ed. (441); A Post (2,375) for Secondary Teachers.
o Maximum salary applies to "senior teachers" or "assistant principal teachers".
p AFT estimate based on recent IFFTU study.
q Includes 8% holiday allowance. Teachers shift scales as they gain experience.
r Each of 26 Kantons have own salary schedule; Zurich has highest pay; Anatze is average rural. Zurich contains family allowance of 1,800, and Anatze contains family allowance of 1,500 and child allowance of 2,400.

Table IV–4

Teacher Salaries In Selected Nations Compared To Salaries in the United States

		Teacher Salary U.S. Dollars (PPP Conversion)				Ratio To The U.S. Average		
		PPP Rate	Starting	Mid-Career (~15 yrs.)	Maximum	Starting	Mid-Career (~15 yrs.)	Maximum
United States	1986	1.00	16,620	25,260	27,887	1.00	1.00	1.00
United States	1988	1.00	18,517	28,071	30,990	1.00	1.00	1.00
United States	1989	1.00	19,350	29,636	32,718	1.00	1.00	1.00
United States	1990	1.00	20,529	31,319	34,576	1.00	1.00	1.00
United States	1991	1.00	21,481	33,033	36,468	1.00	1.00	1.00
United States	1992	1.00	22,171	34,213	37,771	1.00	1.00	1.00
Primary								
Belgium (k)	1986	45.30	14,141	16,147	22,759	0.85	0.64	0.82
Italy	1986	1372	10,787	12,816	15,399	0.65	0.51	0.55
France (l)	1986	7.49	11,146	14,155	17,164	0.67	0.56	0.62
Ireland	1991	0.74	15,045	26,782	31,870	0.70	0.81	0.87
Scotland	1991	0.64	16,783	27,747	30,127	0.78	0.84	0.83
Denmark	1991	10.03	18,317	22,475	23,388	0.85	0.68	0.64
Denmark	1991	10.03	17,871	21,677	22,813	0.83	0.66	0.63
Netherlands (q)	1992	2.28	15,606	22,480	28,729	0.70	0.66	0.76
Germany	1989	2.41	18,661	22,566	27,128	0.96	0.76	0.83
Switzerland(Zurich)	1992	2.47	30,280	41,547	51,447	1.37	1.21	1.36
Switzerland(Anatze)	1992	2.47	24,660	33,250	36,486	1.11	0.97	0.97
Australia (Victoria)	1990	1.49	14,906	19,693	21,401	0.73	0.63	0.62
England & Wales	1990	0.62	14,423	25,197	27,423	0.70	0.80	0.79
Japan	1988	20.60	10,437	17,037	29,974	0.56	0.61	0.97
Austria	1990	16.40	11,436	19,766	21,539	0.56	0.63	0.62
Saskatchewan	1989	1.27	20,071	34,768	36,872	1.04	1.17	1.13
Ontario (Toronto)	1989	1.27	19,725	40,023	42,298	1.02	1.35	1.29
Secondary								
Belgium (k)	1986	45.30	18,114	21,470	31,747	1.09	0.85	1.14
Italy	1986	1372	11,407	14,121	16,893	0.69	0.56	0.61
France (l)	1986	7.49	12,431	18,945	23,880	0.75	0.75	0.86
Ireland	1991	0.74	15,045	29,983	35,071	0.70	0.91	0.96
Scotland	1991	0.64	16,783	27,747	30,127	0.78	0.84	0.83
Denmark (p)	1991	10.03	24,361	31,465	32,743	1.13	0.95	0.90
Denmark (p)	1991	10.03	23,769	30,348	31,939	1.11	0.92	0.88
Netherlands (q)	1991	2.28	19,935	34,001	42,767	0.90	0.99	1.13
Germany	1989	2.41	20,489	24,707	29,629	1.06	0.83	0.91
Germany	1989	2.41	20,945	26,471	32,798	1.08	0.89	1.00
Switzerland(Zurich)	1992	2.47	35,286	45,690	54,980	1.59	1.34	1.46
Switzerland(Anatze)	1992	2.47	28,959	39,148	42,989	1.31	1.14	1.14
Switzerland(Zurich)	1992	2.47	41,859	55,406	64,235	1.89	1.62	1.70
Switzerland(Anatze)	1992	2.47	39,469	51,026	53,905	1.78	1.49	1.43
Australia (Victoria)	1990	1.49	16,547	21,522	24,287	0.81	0.69	0.70
England & Wales	1990	0.62	14,423	27,423	31,130	0.70	0.88	0.90
Japan	1988	20.40	10,668	21,686	31,630	0.58	0.77	1.02
Austria	1990	16.40	13,552	25,382	28,984	0.66	0.81	0.84
Austria	1990	16.40	16,160	31,449	35,991	0.79	1.00	1.04
Saskatchewan	1989	1.27	20,071	34,768	36,872	1.04	1.17	1.13
Ontario (Ottawa)	1989	1.27	20,336	38,717	40,945	1.05	1.31	1.25

* Estimated

Table IV–4 (Continued)

Teacher Salaries In Selected Nations Compared To Salaries in the United States

		Teacher Salary To Per Capita GDP Ratio			
		Per Capita GDP	Starting	Mid-Career (~15 yrs.)	Maximum
United States	1986	17,283	0.96	1.46	1.61
United States	1988	19,558	0.95	1.44	1.58
United States	1989	20,629	0.94	1.44	1.59
United States	1990	22,056	0.93	1.42	1.57
United States	1991	22,629	0.95	1.46	1.61
United States	1992	23,738 *	0.93	1.44	1.59
Primary					
Belgium (k)	1986	11,157	1.27	1.45	2.04
Italy	1986	11,429	0.94	1.12	1.35
France (l)	1986	12,218	0.91	1.16	1.40
Ireland	1991	10,457 *	1.44	2.56	3.05
Scotland	1991	15,404 *	1.09	1.80	1.96
Denmark	1991	15,324 *	1.20	1.47	1.53
Denmark	1991	15,324 *	1.17	1.41	1.49
Netherlands (q)	1992	16,678 *	0.94	1.35	1.72
Germany	1989	14,985	1.25	1.51	1.81
Switzerland(Zurich)	1992	21,152 *	1.43	1.96	2.43
Switzerland(Anatze)	1992	21,152 *	1.17	1.57	1.72
Australia (Victoria)	1990	15,177 *	0.98	1.30	1.41
England & Wales	1990	15,220	0.95	1.66	1.80
Japan	1988	14,288	0.73	1.19	2.10
Austria	1990	13,863	0.82	1.43	1.55
Saskatchewan	1989	19,316	1.04	1.80	1.91
Ontario (Toronto)	1989	18,446	1.07	2.17	2.29
Secondary					
Belgium (k)	1986	11,157	1.62	1.92	2.85
Italy	1986	11,429	1.00	1.24	1.48
France (l)	1986	12,218	1.02	1.55	1.95
Ireland	1991	10,457	1.44	2.87	3.35
Scotland	1991	15,404	1.09	1.80	1.96
Denmark (p)	1991	15,324	1.59	2.05	2.14
Denmark (p)	1991	15,324	1.55	1.98	2.08
Netherlands (q)	1991	16,678	1.20	2.04	2.56
Germany	1989	14,985	1.37	1.65	1.98
Germany	1989	14,985	1.40	1.77	2.19
Switzerland(Zurich)	1992	21,152	1.67	2.16	2.60
Switzerland(Anatze)	1992	21,152	1.37	1.85	2.03
Switzerland(Zurich)	1992	21,152	1.98	2.62	3.04
Switzerland(Anatze)	1992	21,152	1.87	2.41	2.55
Australia (Victoria)	1990	15,177	1.09	1.42	1.60
England & Wales	1990	15,220	0.95	1.80	2.05
Japan	1988	14,288	0.75	1.52	2.21
Austria	1990	13,863	0.98	1.83	2.09
Austria	1990	13,863	1.17	2.27	2.60
Saskatchewan	1989	19,316	1.04	1.80	1.91
Ontario (Ottawa)	1989	18,446	1.10	2.10	2.22

* Estimated

Figure IV-4 Ratio Of Teacher Salary To Per Capita GDP--Primary Level

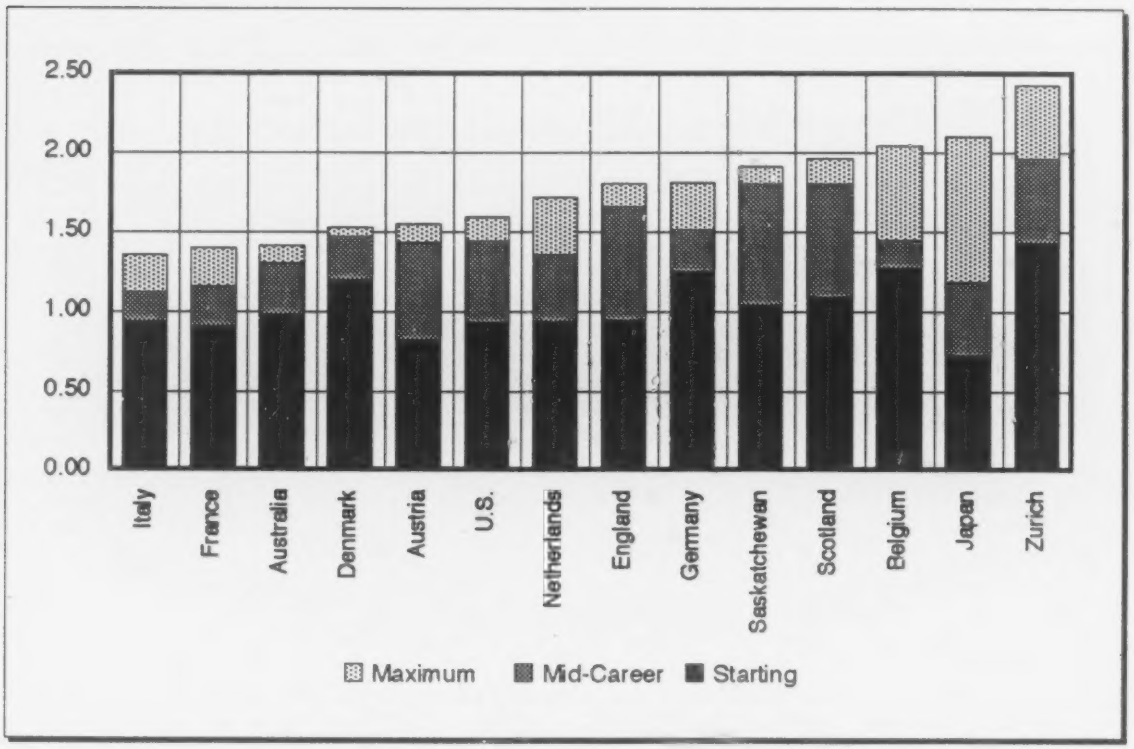
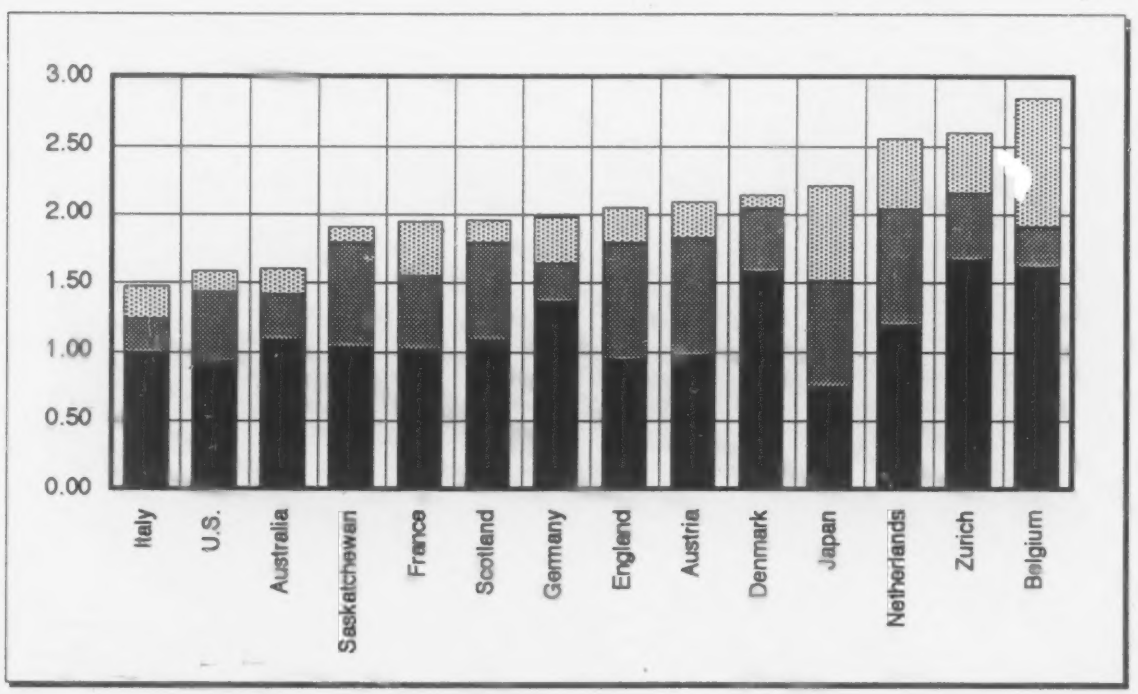


Figure IV-4 Ratio Of Teacher Salary To Per Capita GDP--Secondary Level



APPENDIX B

Data Sources

All data come from the annual AFT Survey of State Departments of Education, except as noted below.

Table I-4

U.S. Department of Labor, Employment and Wages, Annual Averages 1990, November, 1991.

U.S. Department of Labor, Employment and Earnings, May 1992. (Used to estimate private sector annual earnings for 1991.)

U.S. Department of Labor, Employment and Wages, Annual Averages 1981, November 1982.

Table I-5

U.S. Bureau of Economic Analysis, Survey of Current Business, April, 1992.

Table I-6

Technical documentation for the AFT cost-of-living index is in F. Howard Nelson's "An Interstate Cost-of-Living Index," Educational Evaluation and Policy Analysis, Spring 1991, Vol. 13, pp. 103-111.

Table I-7

U.S. Department of Education, 1987-88 School and Staffing Survey, Unpublished Data Tabulations.

Table I-8

U.S. Department of Education, "Key Statistics for Public Elementary and Secondary Education: School Year 1991-92," Survey Report, December 1991.

Table II-1

U.S. Bureau of the Census, Historical Statistics, Colonial Times to 1970, series D739-764 and D893-904.

National Center for Educational Statistics, Digest of Education Statistics, various

issues (used to estimate teacher salaries prior to the 1977-78 school year).

U.S. Department of Labor, "CPI Detailed Report," April 1992.

U.S. Department of Labor, recent issues of Current Wage Developments, (used to estimate average annual earnings for 1991).

Organization for Economic Cooperation and Development, National Accounting Systems Main Aggregates, Volume 1, 1960-88, Paris: OECD.

Table II-2

U.S. Bureau of Economic Analysis, The National Income and Product Accounts of the United States 1929-82 and July issues of Survey of Current Business.

U.S. Bureau of Economic Analysis, Survey of Current Business, November, 1991.

Table II-4

U.S. Department of Labor, Handbook of Labor Statistics, June 1985.

U.S. Department of Labor, National Survey of Professional, Administrative, Technical and Clerical Pay, March 1990.

American Association of University Professors, data derived from the Annual Reports on the "Economic Status of the Profession," published in Academe. (Various years, usually the March-April issues).

Table II-5

Educational Research Service, Salaries Paid Professional Personnel in Public Schools, and Wages and Salaries Paid Support Personnel in Public Schools, ERS: Reston, VA, editions since 1973-74.

Table III-2

Victor Lindquist, The Northwestern Endicott Report, Northwestern University: Evanston, IL, editions since 1973.

Table IV-1

F. Howard Nelson, "International Comparison of Public Spending on Education," Washington, D.C.: American Federation of Teachers, 1991.

UNESCO Statistical Yearbook, 1989.

OECD, National Accounting Systems, Main Aggregates, 1988.

U.S. Bureau of the Census, Government Finance Series, GF-87 and GF-88, No. 5.

U.S. Department of Education, Digest of Education Statistics, 1989.

OECD, Education in OECD Countries, 1989, OECD: Paris.

Table IV-3

Prepublication data from the forthcoming AFT International Teacher Salary Survey. These data come from a variety of international surveys and from salary schedules obtained from foreign embassies, U.S. embassies in other countries, teacher organizations in other countries, and government agencies in foreign countries.

Table IV-4

OECD, National Accounting Systems, Main Aggregates, 1988 and 1989.

OECD, Economic Outlook, 47, June 1990, Paris: OECD

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